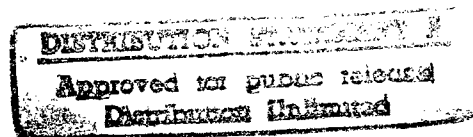




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# ***JPRS Report***

# **Proliferation Issues**



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# PROLIFERATION ISSUES

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21 July 1992

[This report contains foreign media information on issues related to worldwide proliferation and transfer activities in nuclear, chemical, and biological weapons, including delivery systems and the transfer of weapons-relevant technologies.]

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## NORTH KOREA

### Japan Urged To Stop Spreading 'Nuclear Suspicion'

SK1307080592 Pyongyang KCNA in English  
0509 GMT 13 Jul 92

["Futile attempt"—KCNA headline]

[Excerpt] Pyongyang July 13 (KCNA)—Japanese Prime Minister Miyazawa, when he met with the U.S. President and the British prime minister, impudently brought forth the "nuclear problem" of the DPRK, according to a report.

The Japanese authorities do the same when they meet the South Korean authorities and do not forget to spread "nuclear suspicion" against the DPRK at international conferences.

Commenting on this, a NODONG SINMUN analyst today says:

In deliberately spreading the fictitious "nuclear suspicion" against the DPRK, the Japanese authorities intend to decry the peaceful nuclear policy of the DPRK, oppose the denuclearisation of the Korean peninsula and, at the same time, step up their own nuclear arming in real earnest, while concealing their true color as the very one creating a nuclear threat in Northeast Asia. [passage omitted]

### Japan, Western Position Seen as 'Pressure'

SK1507060892 Pyongyang KCNA in English  
0457 GMT 15 Jul 92

[Text] Pyongyang July 15 (KCNA)—A consultant of the Japanese Foreign Ministry, informing the South Korean authorities on July 13 of the "points of an agreement" of the leaders of the seven Western countries that "relations" between the DPRK and seven Western countries

"cannot be improved" unless the "nuclear problem is settled", claimed that it was confirmed at Munich talks that seven Western countries expressed their will to "support" the stand of South Korea toward nuclear problem, a Seoul-based report said.

This is an act of instigating the South Korean authorities to confrontation with us and laying an obstacle to the solution of the nuclear problem on the Korean peninsula.

As for the failure to solve the nuclear problem in Korea, it is entirely attributable to the fact that the United States and the South Korean authorities are persistently rejecting the North's demand for an overall inspection of the U.S. nuclear weapons and nuclear bases in South Korea and unreasonably asserting what is not mentioned in the points of the agreement between the North and the South.

This notwithstanding, the Japanese authorities are favouring the unreasonable treacherous stand of the South Korean authorities who, dependent on foreign forces, are avoiding the overall inspection of the U.S. nuclear weapons and nuclear bases in South Korea, while talking about "denuclearization". This tells that they do not want the solution of the nuclear problem and progress of North-South dialogue but throw a wet blanket over it.

Our position is to resolve the nuclear problem and the question of improving the relations with Western countries from an independent stand and not to solve them, even yielding to other's pressure and allowing the sovereignty to be infringed upon by others.

This is the DPRK principled stand and a consistent policy recognized by the world.

If it is true that seven Western countries, ignoring it, try to put an unjust pressure on the DPRK over the nuclear problem, this will be a wanton interference in the internal affairs of the sovereign state.

**POLAND****Caesium-137 Said Stolen by Russian Soldiers****'Manhunt' Continues**

*LD1107103892 Warsaw PAP in English 2053 GMT  
10 Jul 92*

[Text] Warszawa, July 10—Caesium-137 allegedly stolen by two Russian soldiers may still be at the suspects' garrison in Borne-Sulinowo, north-western province of Koszalin, press spokesman for the local police headquarters Ryszard Urbanski claimed on Friday.

Valeriy Tarapov, suspected of the theft, was detained and transferred to the Russian military prosecutor at the Borne-Sulimowo base.

"We are waiting for the findings of an investigation conducted by Major Sergey Rodiyonov. Tarapov denies the allegations, while manhunt for another accomplice produced no results," Maciej Szajna of the police headquarters in Koszalin said confirming Urbanski's hypothesis.

Caesium (atomic number 55, symbol CS) is a soft silvery-white metallic element. It occurs in small amounts in a number of minerals, like Carnallite. The

natural isotope is Caesium-133. Caesium-137 (half-life 33 years), discovered by German chemist Robert Bunsen and physicist Gustav Kirchhoff in 1860, is used as a gamma rays source.

**New Suspects Detained**

*LD1307165992 Warsaw PAP in English 1606 GMT  
13 Jul 92*

[Text] Koszalin, July 13—Caesium-137 stolen from the Russian garrison in Borne-Sulinowo has not been found yet, press spokesman for the police provincial headquarters in Koszalin, Superintendent Ryszard Urbanski said Monday.

Meanwhile, another two men suspected of stealing Caesium-137 have been detained in the locality of Lobeż, the Szczecin province, and the third suspect in Borne-Sulinowo. The search is under way for still another person, also former soldier of the former Soviet Army.

The police expect the perilous capsules to be still on the premises of the Russian garrison.

All the four detainees, including Valeriy Tarapov, were turned over to the Russian garrison prosecutor's office in Borne-Sulinowo. is this cov'd last book?

## BRAZIL

### German Financing Sought for Angra-2 Nuclear Plant

*PY1407002892 Brasilia Voz do Brasil Network  
in Portuguese 2200 GMT 13 Jul 92*

[Text] The Brazilian Government has decided to obtain loans from German banks in order to finish construction of the Angra-2 nuclear plant. This information was announced by Mines and Energy Minister Marcos Pratini de Moraes, who said that Brazil is currently spending more than \$6 million a year simply for the maintenance of Angra-2. He added that this amount would be used to finish the plant.

[Begin Pratini de Moraes recording] We are spending \$6 million a year to do nothing. We are now going to use the \$6 million we were spending to finish the plant. [end recording]

He also announced that the government has decided to temporarily stop the Angra-3 nuclear plant project. Construction on Angra-2 began in 1976, but slowed down in 1980 and stopped completely in 1988. Work on the Angra-2 plant will resume next November.

### Main INB Operations in 1991 Reported

*92WP0232A Brasilia CORREIO BRAZILIENSE  
in Portuguese 23 Apr 92 pp 14-15*

[Annual report by Nuclear Industries of Brazil, Inc. for 1991: "Report to Stockholders—Fiscal Year Ending 31 December 1991"; original paragraphing not strictly followed]

[Excerpts] To the stockholders:

Here we present the annual report and financial statements summarizing the INB [Nuclear Industries of Brazil] Group's business operations during fiscal 1991.

The main result of its operational activities was production of the third fuel element reload for the Angra I nuclear power plant. That reload was produced in accordance with international requirements as regards quality and technology and with a marked decrease in cost compared to the second reload.

Efforts were made to increase the domestic content of fuel element components and to renegotiate with suppliers with a view to obtaining contract terms more advantageous to the company.

During the year in question, the company reduced its total expenditures by about 37 percent: from \$43 million in 1990 to \$27 million in 1991. The main components of that overall decrease were the savings of 45 percent in personnel expenditures and of 27 percent in financing costs.

Those measures reduced the company's dependence on funds from the National Treasury, with the result that

transfers of such funds were down by 26 percent. The requirement fell from \$19 million in 1990 to only \$14 million in 1991.

The 10 percent reduction in manpower that occurred during the period (61 positions were eliminated), combined with the results of wage negotiations, enabled the company to reduce its monthly payroll by 69 percent, thus demonstrating its diligence in complying with the government's instructions concerning an overall reduction in spending.

As regards financing, the company took the step of cutting back on the space it occupies in Rio de Janeiro and Brasilia, the result being a reduction of \$27,000 per month in the amount it spends on rent, electricity, and maintenance, upkeep, and janitorial services.

Despite the difficulties due to the curtailment of budget sources, the irregular inflow of funds, and lost revenues of about \$10 million because of delays in starting production of fuel elements for the fourth reload at Angra I, the INB completed its entire work plan with the exception of activities related to that fourth reload for Angra I.

As regards activities by the INB's subsidiaries, it should be noted that Uranium of Brazil's production of uranium concentrate—its main purpose as a business—was at a standstill throughout the year, although that firm did take steps to expedite its licensing by the National Nuclear Energy Commission to process cake II. [passage omitted]

### Explanatory Notes to Financial Statements for the Periods Ended 31 December 1991 and 31 December 1990

Note 1: Activities—Nuclear Industries of Brazil, Inc., is a mixed-economy company established as the agency for exercising the Federal Government's monopoly in the nuclear sector (article 5 of the bylaws), and it has the following objectives:

- to engage in the exploration and working of deposits of nuclear and related minerals;
- to build and operate a) facilities for the processing, concentration, and conversion of nuclear and related minerals and by-products and b) facilities for the enrichment of uranium, the reprocessing of irradiated fuel elements, and the production of fuel elements and other materials of value to the nuclear industry;
- to buy and sell equipment, materials, and services in its field of activity on the domestic and foreign markets; and 4) to market the nuclear materials falling within the scope of the Federal Government's monopoly. [passage omitted]

Note 3: Significant contracts—In 1991 the company signed four contracts with Furnas, Inc. covering the supply, conversion, and enrichment of uranium, the assembly of fuel elements, and the manufacture of restraint structures. Specific clauses in those contracts stipulate initial advances totaling 6,696,576,000 cruzeiros, 2,732,132,000 cruzeiros of which were received during the period and classified as advances from suppliers. The balance of 3,964,444,000 cruzeiros is scheduled to be received in 1992. [passage omitted]

## INDIA

**Commentary Hails Satellite Launch Despite U.S. Ban**

*BK1307135592 Delhi All India Radio General Overseas Service in English 1010 GMT 13 Jul 92*

[Commentary by Ajay K. Ray: "Indian Satellite Is Now Rushing to Space Slot"]

[Text] The two-year ban imposed by the United States under the Missile Technology Control Regime, MTCR, on Indian Space Research Organization, ISRO, has failed either to derail or stall Indian scientists' giant leap into the arena of multipurpose satellites. India's first homemade second-generation satellite INSAT-2A launched successfully by the European Space Agency from the French Guiana is heading toward accomplishing cardinal development objectives. The master control facility at Hassan in India has started carrying out orbit-raising operations and in the next few days, hopefully, the satellite would be taken up to the circular orbit at 36,000 kms and finally nudged into the 74 degree east parking slot.

INSAT-2A is the first in the series of five satellites to be built in the country by the ISRO to replace the aging INSAT-1D, the fourth in the INSAT-1 series. It is expected that INSAT-2B, currently being integrated and tested at Bangalore, would be put into orbit by March next year, which would back up the functions of 2A satellite in order to cover the entire globe with communication facilities. Thereafter, 2-C, 2-D, and 2E would be launched as replacements for 2-A and 2-B.

The textbook launch of INSAT-2A is rated as a landmark in India's journey toward self-reliance in satellite technology. It marks the end of dependence on imported satellites and heralds an era of communication satellites built in India itself. The earlier satellite series was custom-built to Indian specifications by the American company, Ford Aerospace, and also maneuvered to their parking slot by American scientists stationed in Bangalore.

The successful deployment and operation of INSAT-2B [B as heard] would propel India into an exclusive club of a few industrialized nations and Russia which possess the knowhow to build such satellites. These indigenous efforts have made the satellite cheaper, costing half as much its predecessor INSAT-1D, particularly at a time when the country is faced with a severe resource crunch. The total cost of placing the satellite in space was 2,020 million rupees, of which the satellite proper costs 600 million rupees. If India were to buy the satellite today from the United States, it would have cost 3,500 million rupees as the price of satellite alone.

Although indigenous to a large extent, the satellites of INSAT-2 series have been dependent on imported components bought mainly from the U.S. The ban under MTCR would not come in the way of launch of 2-B in

any case as the components for its use are already in India. The progress of 2-C likely to go up some time in 1994 will be hampered by the ban.

As the ISRO Chairman Professor U.R. Rao suggested, to tide over the foreign exchange requirement of about 500 million rupees his organization would be interacting with Indian manufacturers to make full use of their capabilities to develop substitutes for every imported item. The government would reconsider the decision not to fund revamping of the SCL—Semiconductor Limited—project at Mohali which would have produced space quality chips. More so, the French electronic manufacturer, Thomson CSS, has reportedly expressed its willingness to supply the components ISRO needs for its future satellites. Items such as radiation-hardened integrated components and travelling wave tube amplifiers, both used in satellites, were being imported wholly from the U.S. Professor Rao on his way to Kourou for INSAT-2A launch had discussions with the French company on the possibilities of purchasing the components. It remains to be seen whether the French Government would give concurrence for the deal in the face of inevitable American opposition.

Irrespective of its foreign component aspect, the launch of INSAT-2A is being seen as a new milestone in space sciences because of its unique design and kind of functions it is going to perform. It would be the first geostationary satellite ever to carry a search and rescue transponder to receive distress signals from sinking vessels, aircraft developing snags, and adventure expeditions in trouble. Presently, the worldwide service use four low-earth orbit satellites which pick up SOS signals and then transmit them to the nearest rescue centers. The rescue efforts are then set in motion locally.

Another important payload on the satellite is the Very High Resolution Radiometer, VHRR, indigenously built at a cost of only 20 million rupees as against 100 million rupees for the imported VHRR on INSAT-1 series. This will provide pictures of the cloud cover every three hours over the country. These pictures along with other information such as wind velocity in the atmosphere, sea surface temperature, and precipitation play a key role in predicting the weather over the country and also develop better mathematical prediction models.

**Reports Assess Second Agni Firing****Details, Background**

*92WP0253A Madras THE HINDU in English  
30 May 92 p 1*

[Boldface words and quotation marks as published]

[Text] New Delhi, May 29. India's second intermediate range ballistic missile Agni was successfully test fired with a higher one tonne payload, but failed to carry out the final manoeuvres in the reentry stage, the Defence Research and Development Organisation (DRDO) announced tonight.

The 2500 km range surface-to-surface missile could not achieve its set objectives and "even though the launch phase was normal, later analysis shows that the mission objective of the final manoeuvring could not be fulfilled due to the premature ignition and separation of the second stage," a press release said.

According to experts, this could apparently mean that the objective of the defence scientists for pin-point manoeuvring of the missile could not be achieved due to the obvious problems in the re-entry stage.

The first test was carried out on May 22, 1989.

Due to bad weather yesterday over the coastline the scientists were doubtful of firing the missile today. However, early this morning, the mission control gave the clearance and the countdown began.

#### Evacuation

Although the countdown began at 4-45 a.m. and Agni was ready for lift-off by 6 a.m., the launching at the Chandipur-on-sea site was delayed due to late completion of evacuation of people from the 2 km radius.

As the countdown ended the two-stage surface-to-surface missile with a range of 2,500 km blasted off from its launch pad at 8-17 a.m. and soared into the sky.

The launch of the re-entry vehicle was witnessed by the Defence Minister, Mr. Sharad Pawar, Minister of State for Defence, Mr. S. Krishna Kumar and the Orissa Chief Minister, Mr. Biju Patnaik. Besides, the Chief of Air Staff, Air Chief Marshal N.C. Suri, the Chief of Naval Staff, Admiral L. Ramdas, the Scientific Adviser, Mr. V.S. Arunachalam and Director of the Missile project, Mr. Abdul Kalam were also present.

The second Agni test vehicle, like the first, used a solid propellant in the first stage and a liquid propellant in the second. The missile is about 21 metres in length, has a take-off weight of 16 tonnes and a payload capacity of one tonne.

India drew global attention when the surface-to-surface missile, Prithvi, was test-fired from the Sriharikota rocket launch station of February 22, 1988.

The maiden launch of Agni a year later evoked criticism, particularly from the U.S., and pressures were put on New Delhi to abandon this project. India has categorically stated that Agni is not a weapons system but only a technology demonstrator.

The first stage solid propellant motor of Agni is the same as that of the first stage of SLV-3, which has been proven in a number of ground and flight trials.

The second stage of the missile is a modified version of Prithvi propulsion configuration, a twin-engined liquid propulsion system with high altitude engines. The scientists said the strapdown inertial navigation system used in the missile possessed explicit guidance, which was

attempted for the first time in the world. The missile employs all carbon composite structures for protecting payload during the re-entry stage of the missile.

The DRDO officials said that the re-entry vehicle of the missile, which carried the payload for delivery, housed the closed loop guidance system with on-board computers incorporating real time software, reaction control system, velocity trimming package and telemetry.

They said the first stage of the test flight was controlled by secondary injection thrust vector and hydraulic fin tip control systems and the second stage by gimbal actuation thrust vector control. They said the vehicle was heavily instrumented with more than 500 channels by measuring various parameters to evaluate the performance of the subsystems.

Waiting journalists could not meet any of the visiting dignitaries at the ITR as they left immediately after the launching. The journalists were not allowed inside the ITR till the testing was completed.

The district authorities had disbursed Rupees 8 lakhs as compensation to the 1192 families for shifting to the camps from their villages falling within the "danger zone."—UNI, PTI

#### Response to Flaws

92WP0253B Madras *THE HINDU* in English  
31 May 92 p 8

[Text] New Delhi, May 30. The snag in the Agni missile test apparent in the missile's inability to target the one tonne dummy warhead to its designated destination has evoked a two-tiered response here. While scientists, citing the unavailability of the complete telemetric data, are understandably hesitant to speculate on an explanation for the missile's shortcoming, strategic experts have begun reinforcing prescriptions for the future course of the missile programme.

However, "first impression" explanations for the failure in the re-entry phase of the launch are trickling in.

One set of experts, premising their opinion on the DRDO's statement issued last night that pre-ignition of the second stage of propulsion caused the error in the re-entry phase, suggest that malfunctioning of the time control ignitions could have led to premature firing of the second stage rocket; that is the second stage was fired before the first stage rocket had covered the full distance of its trajectory. Consequently, the re-entry vehicle, the remnant of the missile which contains the warhead and re-enters the atmosphere towards its target is likely to have fallen well short of it.

Agni is a two-stage solid and liquid fuel propelled missile. While the first stage involves boosting a solid fuelled rocket based on a successful SLV-3 design, the second begins with detachment and ignition of the liquid fuel in what is essentially a Prithvi missile.



Clearly, the flaws in yesterday's launch have left two of Agni's major objectives unaccomplished. Experts say that one of the goals of testing whether the missile's range had extended over its previous version did not succeed. In fact the two-tonne increase in the Agni's weight this time (16 tonnes) is attributed primarily to an increase in its fuel intake to enable it to travel a longer distance.

Secondly, the missile's failure to follow a pre-designated path has resulted in the inability to test the manoeuvrability of the re-entry vehicle. In fact, one of the new features in Agni 02 re-entry vehicle (RV) was the presence of manoeuvring fins on the RV's base which could provide some form of terminal homing capabilities.

The Agni 02 RV for the first time also had an all composite carbon-carbon heat shield enabling it to withstand temperatures above 3,000°C.

**Frequent tests suggested:** Strategic experts have reacted sharply to the test results visible so far and are reinforcing their view demanding a quantum jump in the numbers and frequency of missile testing. In fact, Air Commodore Jasjit Singh, Director, Institute of Defence Studies and Analyses argues that India must carry out a series of tests in the IRBM [Intermediate Range Ballistic Missile] category to prove that the missile is a credible "technology demonstrator"; otherwise "it is not a technology demonstrator but a political demonstrator."

In fact, the shortcomings of yesterday's test have rejuvenated opinion to upgrade the missile from an experimental stage to full deployment in light of what is perceived as an increasingly hostile environment emerging in areas of India's strategic concern—the presence of ballistic missiles in China, Saudi Arabia (over a hundred Chinese CSS-2) and comparable missiles in the not-too distant Kazakhstan combined with Pakistan's determined bid to develop its own missile deterrent, are being perceived as the basis for a strong Indian missile deterrent anchored in the Agni class of IRBM's. In fact, Pakistan has recently set up a Missile Board under the stewardship of Dr. A.Q. Khan who is widely recognised as the father of Pakistan's nuclear weapon programme.

### Premature Ignition

92WP0253C Madras THE HINDU in English 5 Jun 92 p 6

[Text] New Delhi, June 4. What caused the premature ignition of the second stage of the Agni missile which made it stray from its designated course?

In the absence of a complete analysis of the telemetric data, it is hard to pinpoint the deficiencies in the missile. However, the area for the detection of the flaws can be narrowed down to the interface between the termination of the first stage and the firing of the second stage rocket.

The Agni is a two stage experimental Intermediate Range Ballistic Missile (IRBM) with a potential range of 2,500 km. The first stage rocket which uses solid fuel is

based on a successful SLV-3 design and the second is a modified Prithvi missile containing liquid fuel. The re-entry vehicle that will carry the warhead is located above the second stage rocket.

**Change in design:** The two rockets are linked by prominent trusses and have a carbon-carbon heat shield between them. There was a major modification in the missile's structure this time; the designers dispensed with the Ullar motors. These are miniature rockets which in the earlier version were fired to give a momentary extralift to the second stage a fraction before the fuel in the first stage burnt out. This was necessary to compensate for the motion the missile lost towards the termination of the first stage.

However, in the latest version of the Agni, the second stage was to be ignited even as the first rocket was in its terminal phase. This was to ensure continuation of the thrust to the second rocket before it separated from the first stage and shook off the trusses by firing explosive bolts. The protective heat shield between the two rockets was to prevent burn-outs and the trusses were to ventilate the superheated exhaust produced by the second stage rocket soon after ignition.

The only hard information available on the launch so far is that the second stage rocket ignited six seconds in advance. It fired 50 seconds after the launch instead of the scheduled 56. The separation of the second stage rocket was timed at two seconds after its ignition. Assuming that this took place, it is possible that its motion began prior to its schedule on a trajectory away from its pre-programmed course.

Alternatively, the separation might not have taken place after the two-second interval and then the second rocket would have remained attached to the first stage for a longer duration. The resulting 'drag' on the second stage would have caused a deviation from the pre-determined course.

**Flaw in computer?:** The premature firing of the second stage rocket could have also been caused by a design error or because of a flaw in the on-board computer which aligns the various sub-systems of the missile and activates them according to the post-launch sequence. The on-board computer is a rugged unit which performs real time mathematical operations and uses a twin processor configuration with real time executive interrupt features.

Controlling the rate of ignition of the solid fuel propellant in the first stage of the rocket has been a problem with designers of ballistic missiles the world over. A premature or delayed burning of the fuel in this stage which does not correspond to pre-aligned parameters in the computer's software can trigger command impulses to the second stage rocket causing premature ignition. In fact, the failure of the Augmented Satellite Launch Vehicle D-2 is attributed to a problem of a similar nature.

### Third Trial Likely

92WP0253D Madras *THE HINDU* in English  
31 May 92 p 1

[Article by K.K. Katyal: "Fresh Agni Trial Likely in Three Months"]

[Text] New Delhi, May 30. A third test flight of Agni is planned within the next three months as part of India's plans to perfect the most advanced technology for intermediate ballistic missiles, according to reliable indications available here today.

Two points are clear. One, India does not propose to give up the experiment as suggested by the U.S. on the ground that Agni is a technology demonstrator, not a weapon system. Two, the snag that developed at the re-entry stage in yesterday's test is not considered serious and certainly has not affected the confidence or morale of scientists.

The mood of confidence was reflected in the brief comments here today of the Scientific Advisor, Dr. V.S. Arunachalam. He was emphatic that the problem at the final manoeuvring stage was not a major catastrophe, not even a major setback but only a minor snag, capable of being overcome. The systems at all other stages had performed well, according to him.

While scientists and technologists will analyse the huge mass of data in the next two days to pinpoint the snag apparently caused by premature ignition, the foreign policy establishment in New Delhi will be concerned with the diplomatic fall-out of the test. The U.S. was prompt to react—regretting India's decision to proceed with further testing of Agni. A State Department spokesman expressed his Government's belief that "ballistic missiles programmes in areas where there are chronic regional tensions undermine rather than enhance regional security."

### U.S. Retaliation?

This is in keeping with what Washington has conveyed to India from time to time in the past—that in its view, Agni is covered by the do's and don'ts of the Missile Control Technology Regime [MCTR] and their violation would evoke retaliatory steps. The U.S. proffered the same argument when it objected to Russia's contract with India for the supply of space technology engine. When diplomatic pressure did not work in that case, Washington resorted to sanctions against the entities involved in the deal, the ISRO [Indian Space Research Organization] and the Russian enterprise, Glavkosmos. Whether, its response is identical in the Agni case is to be seen.

India, however, is not impressed by this argument and sees no reason to give up or even go slow with its missile programme. This is considered essential for the goal of self-reliance, as also because of the security environment of the region. Here China acquired missile technology some two decades ago and has since exported it to Saudi

Arabia and Pakistan. Iran and some central Asian republics of the former Soviet Union, too, possess missiles. It is, therefore, considered pointless to pressure India into giving up its development programmes.

This is the same approach as has been adopted in regard to nuclear capability. India did not accept the U.S. plea to accede to the Nuclear Non-Proliferation Treaty—on the ground that it sought to perpetuate a discriminatory regime. This was what India told disarmament officials from Washington. Recently, in a frank expose of the Indian policy, the Foreign Secretary, Mr. J.N. Dixit, told his Chinese counterpart that New Delhi did not propose to give up its options, be it in the matter of nuclear devices or missile technology.

The hope that the U.S. would re-think its proliferation agenda after the underground test of the biggest nuclear device by China has not come true. The Chinese test primarily conveyed a message to the U.S.—that Beijing proposes to assert itself as a nuclear power—but at the same time, highlights the nuclear reality in the region. Washington has, however, chosen to ignore it.

### U.S. Reaction Considered

92WP0253E Madras *THE HINDU* in English 3 Jun 92  
p 7

[Text] New Delhi, June 2. The relatively low-key U.S. reaction on the recent Agni missile test, expressing 'regret' with the rider that 'this programme of introducing or developing ballistic missiles in areas where there are chronic regional tensions undermines rather than enhances regional security and stability,' has provoked a lively debate here.

One view is that the U.S. is avoiding a fuss on the Agni test because of its growing strategic dependence on India in the Indian Ocean zone. Another is that the U.S. knows it can retaliate effectively and force India to accept its global strategic prescriptions.

Defence analysts contrast the latest U.S. response with the qualitatively tougher U.S. stance barely three years ago, when the Agni was first tested. Even now, they warn, a lot depends on the interpretation of the meaning of certain key terms in the phrasing of the official U.S. reaction and the statements in the wake of the Missile Technology Control Regime controversy.

**Subdued response:** Soon after the Agni's first launch in May 1989, Mr. Roman Popadiuk, the Deputy Press Secretary in the White House, while expressing the administration's 'concern' said that "in the past we have made our position very clear to the Indian Government that further proliferation of ballistic missiles would be regarded as a highly destabilising development in the region". The dropping of expressions such as "highly destabilising" this time is being interpreted as a reflection of an apparently subdued response.

After the Agni's first test, Mr. William Webster (then chief of the CIA) had, in his testimony to the U.S.

Congress, argued for stopping supplies of state-of-the-art technologies in fields such as missile guidance, while hawks in the Congress demanded a comprehensive embargo against India.

Experts attribute several reasons to Washington's low key reaction. The nearly three-year gap between the first and the second Agni tests, indicating India's flagging political resolve to master the complex technological challenges of developing intermediate range ballistic missiles (IRBM), is seen as a major factor restraining a high pitched U.S. response.

According to analysts here, Agni would have to undergo several trials before it can even become a credible 'technology demonstrator,' and a political decision on its deployment can be taken only thereafter. In other words, an unsuccessful second test which indicates the long distance India has to travel before it is in a position to contemplate the deployment of IRBMs may be behind the comparatively soft response.

**Total view:** A senior analyst at the Institute of Defence Studies and Analyses (IDSA) urges a 'total view' of the developing Indo-U.S. relations and suggests that the U.S. response is related to 'substantial pragmatism' which policies towards India have shown in the recent past.

Despite the hiccups in bilateral relations especially on account of New Delhi's resistance to Washington's insistence that it sign the Nuclear Non-Proliferation Treaty, there has been a substantial improvement in Indo-U.S. relations reflected in the joint naval exercises carried out recently.

In fact, it is suggested that there is a growing strategic interdependence between New Delhi and Washington. The recession-ridden economy is forcing the U.S. to cut overseas military expenditure which is already reflected in the closure of the Subic Bay base—its largest naval facility in the Asia-Pacific region.

Consequently, it requires the 'co-operation' of potential regional allies such as India within a multilateral framework of 'co-operative vigilance' in order to preserve its commercial and strategic interests in the Indian Ocean and the Asia-Pacific region.

**Ban on ISRO:** In addition, the domestic opinion against the U.S. here reflected in the furore in Parliament and outside over the imposition of the two year technology export ban on Indian Space Research Organisation (ISRO) had provoked is seen as another factor discouraging the U.S. from adopting a tough line against India after the second Agni test.

However, the U.S. determination to expand and tighten technology denial regimes in the absence of a Soviet technology window is also seen as a major factor contributing to its confident stance on drawing Third World countries such as India into its policy framework.

### India Undeterred by Sanctions

92WP0262 Madras *INDIAN EXPRESS* in English  
1 Jun 92 p 10

[Editorial: "The Importance of Agni"]

[Text] The second test firing of the Agni intermediate range ballistic missile has not been as flawless as the Defence Research and Development Organisation would have wished or as rewarding as the scientists who worked so hard on the wholly indigenous system deserved. This only means that there is more work ahead to overcome the failures seen in the re-entry stage manoeuvres and then the Agni must be tested again. From the advances made so far in designing and fabricating the Agni's components and sub-systems, it is obvious that complete success is just over the horizon. What is important today is the demonstration of India's determination to carry on with its integrated guided missile programme. It has been essential to show that the political will exists and the Government of India will not be deterred by sanctions and noises of disapproval from abroad from doing what is clearly in the country's best interests just now. After five inexplicable postponements of the second test since the Agni was first fired in May 1989, it looked as though the Government was losing its nerve and would allow itself to be bullied into putting off further development of this class of missiles even though little has happened on the international disarmament scene to warrant such a change of plans.

The first American reaction to the test was relatively mild. It does not preclude stronger reactions from the US Administration under pressure from the US Congress, some of whose members have been advocating initiatives to tie western trade and aid to non-proliferation issues in the Third world. It is not enough for these Congressional activists to learn that trade sanctions applied under the Missile Technology Control Regime to the Indian Space Research Organisation, will not slow down India's integrated missile programme. Or in fact that the American action has been seen in India as discriminatory and had the effect of strengthening public opinion in favour of the indigenous missile programme. What international critics must be made aware of is not only that India can but why it intends to create a strategic missile option. India is committed to universal disarmament and until such time as real progress is made towards it, rejects the selective application of disarmament principles to itself. The global environment in which India's policy-makers must make decisions about India's security is one where intermediate range ballistic missiles have not been eliminated in the West, the Commonwealth of Independent States or China. Medium range missiles have not been kept out of the Middle East either. Nor are the nuclear and missile "haves" in a position to offer security guarantees to the "have-nots." In such a context India has no choice but to reserve the right to develop various military options even as it strongly urges a universal and non-discriminatory non-proliferation regime. In sum,

although it has not been an entirely successful "technology demonstrator" as officials will like to describe the missile, the second Agni test must be taken as an Indian bid to be heard in the global disarmament debate.

#### **Joins 'Exclusive Club'**

92WP0252A Madras *THE HINDU* in English  
30 May 92 p 8

[Editorial: "The Significance of Agni"; quotation marks as published]

[Text] The successful completion of the second test flight of Agni, India's intermediate range ballistic missile coming close on the heels of the test-firing of Prithvi, surface to surface medium range missile on May 5 and the orbiting of the Stretched Rohini Satellite Series C by the augmented satellite launch vehicle a little over a week ago are a tribute to the country's scientific skills and capabilities. The herculean dimensions of the Agni launch could be seen from the 2,500 km range of the 19-metre-long missile into space, the use of solid fuel for the first stage and liquid fuel for subsequent re-entry are the other features of the Agni launch from Chandipur-on-sea in Orissa.

The truly spectacular grandness of these achievements coming in quick succession should be seen in the context of the crippling brain drain which India has been living with for years. The migration of the country's young and talented scientists and engineers—especially from the prestigious Indian Institutes of Technology almost immediately after graduation—has starved Indian scientific institutions of badly needed talent which has gone in a big way to the richer nations as an expensive gift the country could ill afford. India will forever remain grateful to the scientists, research workers, engineers, technicians and all the others who have stayed back and are working with a dedication on its space, missile and other prestigious projects and have made the latest technology leaps possible.

As for the content of the Agni programme, the Government has repeatedly stated that it is still in the class of technology demonstrators and is not part of its weapons system. The success with the launching of the test flights is said to have taken India to the exclusive club of six nations possessing the IRBM [Intermediate Range Ballistic Missile] technology, though this will certainly not please the U.S. which has made no secret of its intentions to deny such membership to this country. The embargoes on technology and critical component imports which India will have to reckon with as the U.S. proceeds to put into effect the curbs provided for in the Missile Technology Control Regime [MTCR] leave it no choice but to expand substantially the indigenous content of its space and missile programmes. Though the postures which the U.S. has recently taken on blacklisting the ISRO [Indian Space Research Organization] and Glavkosmos do not encourage hopes about its becoming receptive to persuasion, India will have to draw attention

to how its missile programme will essentially remain defensive even when Agni graduates from a technology demonstrator to a weapon system for safeguarding its security. The acquisition of ICBM [Intercontinental Ballistic Missile] capabilities by China and the strike capabilities which Pakistan has been developing will have to be taken note of by the U.S. and its MTCR allies. The headway which it has made with its missile programme could have done nothing more than help India keep pace with its neighbours. The U.S. should, therefore, not pick out India for the very unfriendly treatment it has chosen to give. India and China have been making earnest efforts to strengthen their friendly relations and if Pakistan could be persuaded to give up its disruptionist provocations, the Agni and the other missiles could always stay as technology demonstrators. This will enable India to devote its efforts towards giving a wholly peaceful orientation to its missile programme. It should certainly be possible for the U.S. to prevail upon Pakistan with whom it has had a long history of military alliances against perpetuating tension in the subcontinent.

#### **Joint Effort With Germany on Chemical Arms Ban**

BK0907155492 Delhi All India Radio Network  
in English 1530 GMT 9 Jul 92

[Text] India has agreed to work closely with Germany to achieve a comprehensive convention to ban chemical weapons. The matter came up for discussion at a meeting with the visiting German commissioner for disarmament and arms control, Ambassador (Joseph Halleck) and the senior officials of the External Affairs Ministry in the capital. The Indian side reiterated that any convention to ban chemical weapons should be nondiscriminatory and enjoy universal adherence. It should also completely ban development, production, possession, transfer and use of chemical weapons. Ambassador (Halleck) told the Indian side that the delegates attending the Geneva conference on disarmament, now underway, want an agreement to be reached in the current session itself.

#### **Ministry Denies Receiving Norwegian Heavy Water**

92WP0248A Oslo *AFTENPOSTEN* in Norwegian  
9 Jun 92 p 3

[Article by Harald Stanghelle: "India: Heavy Water Not Received"]

[Text] *The Indian Foreign Ministry has now given Norway its final answer in the heavy water case: In a statement to the Norwegian Embassy in New Delhi it categorically denied that Norwegian heavy water had ended up in India.*

In February the Norwegian prosecuting authority presented evidence that 12.5 tons of Norwegian heavy water

which were sold to Romania in 1986 had been resold to India. Now the Indians have flatly denied the evidence that has been presented.

"India has not received any Norwegian heavy water either from Norway or via other countries. That is our final answer. Norway must ask others where the heavy water is, it has not reached India," diplomat H.N. Paul of the Indian Embassy in Oslo told AFTENPOSTEN.

The Indian diplomat said he could not comment on the conclusions the Norwegian investigators have drawn:

"I regard what the Norwegian investigators say as an internal Norwegian affair on which as a diplomat I cannot comment."

Press spokesman Bjorn Blokhuis of the Foreign Ministry confirmed that Norwegian authorities received India's final answer in the heavy water case several days ago:

"We are now working on what further steps to take in dealing with this response," Blokhuis told AFTENPOSTEN.

This delicate matter will probably land on Foreign Minister Thorvald Stoltenberg's desk as early as this week.

#### Flat Denial

In February Jon Gaarder, Norway's ambassador to India, asked the Indians to "help clarify" where the Norwegian heavy water had ended up. During a meeting at the Indian Foreign Ministry's European section the Norwegian ambassador was given a verbal answer to the effect that India had no knowledge of the heavy water.

The ambassador received instructions from Oslo to pursue the matter further and India was again "asked to assist with information," as they say.

Now the Indians' final reply has been received and it contains a flat denial of the whole affair.

And this despite the fact that the Norwegian police and the public prosecuting authority have presented proof that a total of 27.5 tons of Norwegian heavy water has ended up in India's official nuclear program. First 15 tons, which were sold in 1983 through now deceased German businessman Alfred Hempel. Then Norway sold 12.5 tons of heavy water to Romania in 1986 and in January evidence was found that this consignment had also ended up in India illegally.

#### 'Gray Market'

The Indian "firm" that bought the Norwegian heavy water, the Directorate of Purchasing and Storage with an address on Palton Road in Bombay, is a branch of the Indian Atomic Energy Ministry.

The Norwegian investigation has been led by Chief Prosecutor Anstein Gjengedal of the Economic Crime Division, who "regards it as conclusively settled" that

the Romanian sale went to India. The Norwegian authorities have informed the International Atomic Energy Agency (IAEA) of what the Norwegian investigators have uncovered.

Heavy water can be used in the process that leads to the development of atomic weapons. For this reason there are tight restrictions on the sale of heavy water, restrictions that Norway has agreed to, but on several occasions we have not succeeded in living up to our commitment. At least twice the Norwegian authorities have been duped into selling heavy water on the so-called atomic gray market.

#### Rejected Inspection

India is one of the Third World countries that have developed nuclear arms and it refuses to allow its atomic facilities to be inspected by the IAEA. Therefore there is a ban on selling nuclear material to India. However the Indians have acquired heavy water several times on what is called the "atomic gray market."

The sequence of events uncovered by the Norwegian investigators in this case provides a good illustration of the methods that are used:

In the fall of 1985 Romania began negotiations with Norsk Hydro concerning the purchase of heavy water. Officially the heavy water was intended for use in the trial operation of the nuclear reactor the Canadians built in that country and the Ministry of Trade approved the sale. The Romanian purchaser was the Chimika firm, registered in the tax haven of Liechtenstein with a branch office in Bucharest, the capital of Romania. The Romanian Trade Ministry issued a so-called final use statement guaranteeing that the heavy water would be used only in Romania and solely for peaceful purposes. Such a statement also means that the heavy water neither will nor can be resold.

#### Ceausescu

In contrast to India, Romania has signed the nuclear nonproliferation treaty.

On 19 March 1986 a Romanian transport plane with 12.5 tons of heavy water on board flew from Oslo to Bucharest. There the plane remained on the ground overnight and then flew on to the Indian city of Bombay on 20 March.

"The present leaders of the Chimika firm did not know about this special transaction and the current Romanian authorities place all the responsibility on the former Ceausescu regime," Chief Prosecutor Gjengedal told AFTENPOSTEN in February.

The affair is even more delicate because Chimika's branch in Bucharest was used by central members of the family of deposed dictator Nicolae Ceausescu. The purpose of the heavy water transaction was to obtain hard currency. According to U.S. heavy water expert Gary

Milhollin the Romanians paid an estimated \$3.1 million, but "the Ceausescu regime allowed itself good margins for all transactions of this kind," Professor Milhollin told AFTENPOSTEN.

The Norwegian investigators have provided detailed documentation of the trail of the heavy water from Norway to India. But in spite of this India has now categorically denied that the country received Norwegian heavy water.

## IRAN

### Khamene'i Denies Acquisition of Atomic Weapons

LD1307101292 *Tehran Voice of the Islamic Republic of Iran First Program Network in Persian 0930 GMT 13 Jul 92*

[Excerpt] [passage omitted] The Leader of the Islamic revolution [Ayatollah 'Ali Hoseyni Khamene'i] has said that international propaganda accusing Iran of militarism, of increasing its weapons of mass destruction and acquiring an atomic weapon is a vicious measure taken by the United States and Zionism. He added: an atomic weapon is not something which can be transferred quietly from one country to another. By spreading this false rumor, they wish to present the Islamic system as being opposed to the establishment of world peace. They should know, however, that the strength of the Islamic Republic of Iran is in the strength of faith of its hezbollah forces. This is precisely a strength that the United States, the former Soviet Union and other small and large world powers have so far been unable to defeat. [passage omitted]

## ISRAEL

### Rabin, Baker To Discuss Syrian Arms Procurement

TA1507143392 *Tel Aviv HA'ARETZ in Hebrew 15 Jul 92 p. A1*

[Report by Eytan Rabin]

[Text] Syria has recently received another shipment of Scud missiles from North Korea.

Unlike the previous shipments, which contained Scud-B missiles with a range of 250 km, the current shipment contains upgraded Scud-C's with a range of some 500 km.

The shipment was flown into Syria from the Persian Gulf, where it arrived aboard ships from North Korea. That was done to try to avoid U.S. surveillance ships in the region.

U.S. sources have said that this is the third shipment of Scud missiles arriving in Syria from North Korea in the past several months. According to them, there are dozens of Scud-C and Scud-B missiles in Syria today.

Sources in the defense establishment have noted that along with the missiles, Syria has recently purchased self-propelled guns, and that since the end of the Gulf war the Syrian military has intensified its procurement of modern arms. According to military sources, the Syrian military has obtained upgraded T-72 tanks and advanced MiG-29 and Sukhoi-29 planes, among other things.

The military sources added that the Syrian decision to upgrade its military equipment came in light of an improvement in the Syria's economic situation. It was also the source of the Syrian decision to try to achieve the ability to manufacture nuclear arms within 10 years.

A senior source at the new prime minister's bureau has said that the problem of the Syrian military buildup and the Middle East arms race will be raised in the discussions that Yitzhaq Rabin, prime minister and defense minister, will hold with U.S. Secretary of State James Baker, who will arrive in Israel on 19 July.

### Begin's Nuclear Deterrence Doctrine Analyzed

92AE0467Z *Tel Aviv HA'ARETZ in Hebrew 18 June 92 p B1*

[Article by Reuven Podhoretz]

[Text] In a fashion that is extraordinary but apparently unavoidable, the IDF [Israel Defense Forces] once again is publicly engaging in matters of grand strategy while the government continues to shirk its duty to handle these affairs. Three senior members of the general staff have recently warned of the dangers inherent in the introduction of nuclear weapons to the Middle East. One even proposed concrete action to stop this threatening development. The three are the Deputy Chief of Staff, the Chief of Military Intelligence and the Commander of the Air Force, the last of whom pointed out the danger and made clear that it is an existential one. "Such weapons" in the hands of one of the states in the region, argued General Herzl Budinger, "can even lead to a world war."

Formulation of Israel's nuclear policy is not one of the functions of the IDF's general staff. That is clearly the responsibility of the government and especially its chief executive. The IDF can and must provide advice and intelligence data to policy-makers in the government, but it does not determine if and when Israel will attack nuclear installations in a foreign country. By all appearances, what induced the GHQ [General Headquarters] generals to make their opinions on nuclear affairs public was the continuing hibernation of the highest political offices and their exclusive preoccupation with the election campaign while ignoring the need for swift action on nuclear matters.

It seems that policy-makers still do not appreciate how far-reaching and destructive, from Israel's standpoint, it would be for a Middle Eastern state to join the nuclear club. The day that Israel loses its hegemony over nuclear

potential, one of the central foundations of the delicate balance between her and her neighbors will collapse. A critical component of Israel's deterrence ability will be lost. It is difficult even to imagine the repercussions on the web of relations between Israel and the region's states.

The top brass understand this very well. In off-the-record discussions, more than a few generals have expressed deep concern over this change in the rules of the atomic game in the Middle East. Although the IDF's military doctrine does not include a nuclear component, and is based entirely on the use of conventional forces, the background for a nuclear option will change.

The other side, too, understands that when there is no hope left, Israel will still have what they call a "doomsday bomb." That is the firm psychological barrier against contemplation of the destruction of Israel. This defense system will fade away when Israel loses the monopoly it has enjoyed in the nuclear arena. And the acquisition of nuclear weapons by a Middle Eastern country will place Israel in a bind whose consequences are not easily foreseen.

Gen. Budinger, Commander of the Air Force, has indicated two courses of action—one political and the other military—that Israel must pursue to prevent the introduction of nuclear weapons into the Middle East. There seems to be no disagreement with the Air Force Commander over the political route, which includes reliance on international bodies and pressure on the United States to advance the subject of supervision and control to the head of the international agenda. But in speaking of military action, while dropping heavy hints about the strategic attack capabilities of the force he commands, Budinger is planting dangerous illusions among his listeners.

It must be clearly understood that neither the Air Force nor the entire Israeli army can, by military means, stop the periphery states from acquiring nuclear weapons. At most, they could slow this process, and only for a short time at that. Whoever says that we must follow Iran's development of nuclear weapons and consider the possibilities presented for military action by the IDF is misleading not only his listeners, the citizens of the country, but policy-makers as well.

Political scientists who have analyzed the bombing of Iraq's nuclear reactor in 1981 have constructed an interesting theory centered on what they call "the Begin Doctrine." In essence, this theory posits that, as proved by the Iraqi reactor strike, Israel has adopted a policy whose objective—effected by military means—is to prevent Middle Eastern states from obtaining nuclear weapons. The problem with this theory is that it has no connection to the reality of the Middle East or the world. "The Begin Doctrine" could exist only in the articles of political scientists. In practice, it expired the day it was conceived.

The bombing of the reactor outside Baghdad was indeed a strategic-military step meant as a warning, but it was a one-time action. Israel would be unable to employ similar means against other Middle Eastern states, and not merely because of operational military constraints. Whoever believes that, under current international conditions, Israel will be able to bomb nuclear installations in other states, and pay no price other than condemnation in the United Nations, is not correctly reading the map.

From a military perspective, too, it would be unmerited arrogance to speak of an operation to eliminate Iran's nuclear program or Algeria's. The Air Force undoubtedly has the operational ability to fly 1,500 kilometers to Tehran and hit the nuclear reactor there. But even destruction of the reactor would not mean liquidation of their program for developing nuclear weapons. The Iraqis, whose installations are scattered around the country, have proved that it is possible to develop nuclear weapons even without reactors. What vast armadas of American air power failed to accomplish in more than 40 days of bombardment is unlikely to be within the power of the Israeli Air Force to achieve.

Nuclear proliferation in the Middle East is truly a development fraught with risks. The government must stop ignoring it. Still, it would be a mistake to base policy on a doctrine that does not exist and on the assurances of senior officers who may not be able to make good on them. The breathing space that Israel has enjoyed in the nuclear realm is contracting. The government is duty-bound to put the issue at the top of the nation's list of priorities and to harness to this task the international community, above all the United States.

#### **Terms for Chemical Nonproliferation Treaty**

*TA1607121192 Tel Aviv HA'ARETZ in Hebrew  
16 Jul 92 pp A1, A8*

[Report by Aluf Ben]

[Excerpt] In one of its coming meetings, the cabinet will discuss the Israeli position on the international treaty for chemical nonproliferation, in anticipation of the treaty's expected endorsement at the Geneva Disarmament Committee in August. Professional teams at the Defense and Foreign Ministries are currently formulating the position, which will be brought up for the political echelons' approval in due time.

The chemical nonproliferation treaty was prepared by the international 40-member Disarmament Committee. Germany represents the committee in talks with various governments joining the treaty, and on 14 July, the German deputy foreign minister, Dr. Josef Holick [name and title as published], visited Israel for talks with relevant Israeli elements.

Holick met with Foreign Ministry Director General Yosef Hadas, Disarmament Affairs Division Director Yehi'el Yativ, and Yequiti'el Mor, the foreign affairs director at the Defense Ministry. The officials

acquainted the visitor with Israel's terms for joining the treaty and were briefed on his visits to Pakistan and Iran. Yesterday the German official left for Egypt, where he will present the Israeli positions.

Last year, the government decided that Israel was ready in principle to join the chemical nonproliferation treaty, but because of the state of war in the Middle East and the tangible danger of chemical weapons, which were employed in the Iran-Iraq war, the government presented conditions.

In his speech at the UN General Assembly in October 1991, former Foreign Minister David Levi said that Israel is in favor of the treaty, but to ensure its efficacy, Israel demands that all the countries in the region join the treaty.

This stand is countered by the demands of several Arab countries, which render their joining the chemical nonproliferation treaty contingent on Israel's signing the treaty for nuclear nonproliferation.

In talks with the German representative, the Israelis presented additional demands:

- A regional inspection forum for chemical weapons, which will take the region's special problems into account, is to be established in the Middle East. A similar forum exists between warring India and Pakistan, which have already agreed to join the chemical nonproliferation treaty.
- The clause allowing every country to revoke its participation in the treaty upon a three-month notice will be amended. Israel argues that this period is too short, as it will allow seceding countries to rearm rapidly.
- Israel objects to surprise visits by international inspectors searching for chemical weapons.
- Israel is to be guaranteed a representation on the executive committee of the body that will implement the treaty. Under the emerging agreement, some 40 countries will be represented in the executive committee on a regional-geographic basis. Israel wants to be classified with the Asian group, where Arab countries have a majority. This problem has come up in numerous international forums, including even sports. [passage omitted]

## PAKISTAN

### Transfer of PRC Nuclear Technology Noted

BK1407120592 Islamabad THE MUSLIM in English  
14 Jul 92 p 2

[Text] Islamabad, July 13—China is going ahead with its nuclear power programme at a great speed and will have 2100 mw installed nuclear capacity in operation by 1994.

This was stated by the former chairman of Pakistan Atomic Energy Commission [PAEC], Munir Ahmad Khan, who has recently returned from an extensive unofficial trip to China during which he visited the 300 mw Qinshan Power Plant and the nuclear power plants at Daya Ba.

He said the Qinshan nuclear power plant which had already achieved 75 percent of rated power, was expected to reach full power by next month. The plant has undergone very rigorous commissioning tests and no difficulty in its safe operation is likely to be experienced. Pakistan has signed a contract for a 300 mw Qinshan type nuclear power plant to be built at Chashma.

The former PAEC chief hoped that further improvements both in terms of safety and technology, based on the experience gained by China with the Qinshan plant, will be incorporated in Chashma plant. It may be noted, he added, that [words indistinct] the services of experts from the International Atomic Energy Agency to review the safety of this power reactor so that it complies with the latest IAEA guidelines.

Tha Daya Ba power station, located approximately 50 km to Hong Kong, has two nuclear power plants of 900 mw each. Of these, the first plant is expected to be in operation by 1993 and the second by 1994.

Munir Ahmad believed that China would make sure that none of its power plants had any design or operational safety problems which were experienced in the nuclear power plants of erstwhile USSR.

After completion of these three power plants, China will proceed with construction of its newly designed 600 mw nuclear power reactors for its future use, he said.

### France Said To Renege on Nuclear Plant Deal

92WP0250A Islamabad THE MUSLIM in English  
11 Jun 92 p 1

[Article by Ashraf Hashmi: "France Again Backs Out of Nuclear Plant Deal"]

[Text] Islamabad, June 10: France is understood to have declined to supply the nuclear power plant to Pakistan as agreed between the two countries in January last on the eve of Pakistan's Prime Minister's visit to Paris.

This is the second time France has backed out of its promised sale of nuclear equipment to Pakistan. Earlier, it had unilaterally cancelled the sale deed of a reprocessing plant to this country under U.S. pressure.

Commenting on the situation, a Foreign Office spokesman told newsmen here at the weekly briefing that the chances of the supply of a nuclear power plant from France were "remote" as the country had recently brought about basic amendments in its nuclear equipment export policy.



According to the amendment, France now stand committed not to enter into any type of nuclear deal with a country which refuses to sign the non-proliferation treaty [NPT] and accept international safeguards. Pakistan, the spokesman said, had a known position on the NPT and was not ready to sign it or to accept the international safeguards unless India did the same. Perhaps, it could be the obvious reason for France backing out of its promised deal, the spokesman remarked.

Replying to a question, the spokesman said that Pakistan could not claim the promised nuclear power plant from France as a matter of right as the two nations had only agreed in principle and no formal agreement was signed between them.

When asked if the arrangement between the two nations now be considered as shelved, the spokesman avoided a direct answer saying that whatever he could say at the moment was that the supply of the nuclear power plant from France seemed to him "very very remote."

#### **Bilateral Dialogue With India on Nuclear Issue**

*BK1007144492 Islamabad PTV Television Network in English 1400 GMT 10 Jul 92*

[Excerpt] Pakistan and India have agreed to continue bilateral dialogue at all levels for resolving all outstanding bilateral issues including the question of Jammu and Kashmir and nuclear nonproliferation. This was stated by the minister of state for foreign affairs, Mr. Mohammad Siddique Khan Kanjoo, in Islamabad today on his return from Colombo after attending the 11th session of SAARC [South Asian Association for Regional Cooperation] meeting. The two countries agreed on the early convening of foreign secretaries-level talks. Mr. Kanjoo said he had wide-ranging talks in Colombo with his Indian counterpart, Mr. Eduardo Faleiro, on different subjects including the forthcoming SAARC summit in Dhaka and NAM [Nonaligned Movement] summit in Indonesia. Mr. Kanjoo said the prime minister, Mr. Mohammad Nawaz Sharif, will lead Pakistan's delegation at the NAM summit which will be held in Jakarta from the 1st to the 6th of September. [passage omitted]

## Reaction to U.S. Stopping Plutonium Production

### Goals Termed 'Inconsistent'

PM1607113792 Moscow KRASNAYA ZVEZDA  
in Russian 16 Jul 92 p 3

[Report by Manki Ponomarev: "Washington's New Initiative: Beefing Up the Nonproliferation Regime"]

[Text] Ignoring Americans' superstitious prejudices against the number 13 (a prejudice not confined to Americans), President G. Bush made a statement Monday 13 July which was immediately described as a new initiative. He announced that the United States is discontinuing the production of plutonium and highly-enriched uranium, and he called on other countries to beef up existing measures designed to ensure the non-proliferation of nuclear, chemical, biological, and conventional types of weapons and the means to deliver them, especially missile hardware and technology.

"Several weeks ago President Boris Yeltsin and I reached agreement on the deepest cuts in nuclear weapons stockpiles since the beginning of the nuclear age," G. Bush said. "However, while our own arsenals are shrinking, the potential for producing or obtaining weapons of mass destruction and the means to deliver them is growing, which increases the threat to U.S. security and peace on the planet."

As is clear from the statement, Washington intends to play a leading role in international efforts to prevent the proliferation of technologies and weapons that pose a threat to security. The United States will try to get an extension of the number of participants and beef up the main agreements in this field. Among other things, there is a proposal to organize monitoring of the export of weapons and weapon components as such a way as to stop a potential purchaser who had been turned down by one nuclear power from applying to another and securing what he wanted. It is planned to use collective measures of influence up to and including tough sanctions imposed by the UN Security Council against countries that commit the most serious violations.

This is the essence of G. Bush's new initiative. It should be noted that an enormous amount of plutonium and enriched uranium—the basic components of nuclear weapons—has already been accumulated in the world. It has been reported that at the end of the 1980's there were about 100 tonnes of plutonium and 500 tonnes of uranium in Soviet and U.S. warheads. Other countries too possess plutonium and uranium, and moreover not just nuclear countries, since plutonium production takes place at commercial nuclear electric power stations. Methods of eliminating or recycling plutonium remain practically undeveloped at the present time. It is no accident that the United States has stopped producing plutonium for several years now. In Russia, too, the manufacture of plutonium for military purposes has been drastically cut back and will be halted completely in the near future. So, in this sense, the U.S. President's

statement only elevates what has already been happening in practice to the rank of official policy.

Nevertheless, the measures that are being proposed to beef up the nonproliferation regime should of course be welcomed. But they have been put forward largely because Washington is afraid that those who are striving to bring about the collapse of democracy in Russia and other CIS states are stepping up their actions. The intention is that, together with the cuts in U.S. and Russian nuclear arsenals, these measures will be one more barrier standing in the way of these forces.

The Washington administration's new initiative looks particularly important against the background of the actions of extreme right-wingers in the United States who are insistently demanding a review of the key provisions of the START Treaty. The White House is striving to get the treaty ratified in the form in which it was signed, and is prepared to go further. But, in a number of cases it is being inconsistent. Thus, the White House chief has just turned down a proposal to limit the number of U.S. nuclear tests.

Initial responses indicate that Bush's initiative has met with approval in many countries. But now Britain has announced that it will continue to produce plutonium and enriched uranium, which undermines the basic point of this initiative. There are also doubts about the purity of U.S. intentions—either the United States really does intend to accelerate the process of ridding mankind of weapons of mass destruction, or it simply wants to remove potential competitors from the path of its military-industrial complex.

### Seen as 'Half Measure'

LD1507201292 Moscow Radio Moscow World Service  
in English 1710 GMT 15 Jul 92

[Station commentary by Vladislav Kozyakov]

[Text] This week President Bush has announced his decision to stop producing plutonium and uranium for nuclear explosions. Our commentary is by Vladislav Kozyakov:

The decision has the aim to stop the proliferation of weapons of mass destruction which were described as the growing threat to the United States' national security and the whole world. The statement published by the White House justly notes that at the time when Russia and the United States have agreed on historic cuts in nuclear arsenals the potential of other countries to produce and acquire such weapons has been increased. This may be fraught with dangerous consequences.

The first reaction of Moscow to President Bush's statement was favorable. A representative of the Russian president described the decision as a major initiative which might create conditions favorable for joint action on reducing nuclear weapons.

But, many observers believe now that relations of partnership are being consolidated between Russia and the United States they may go still further in such an important sphere as an end to the production of fissionable materials.

Moscow more than once suggested to conclude Russian-American verifiable agreement in this sphere. [sentence as heard] It also suggested that Russia and the United States exchange data on uranium and plutonium inventories and number of warheads.

Such an approach may contribute to solving yet another problem inherited from the cold war. Russian inspectors may verify if the United States has stopped producing uranium and plutonium whereas the American team would control the situation in Russia where uranium is no longer produced and reactors producing plutonium for weapons are being stopped speedily.

Why not to use the principle of trust and verify which has justified itself? A Russian-American agreement could also promote the main goal stipulated in the recent White House statement, that is to ensure the non-proliferation of the mass destruction weapons.

Yet this half measure (?of) Washington has not been hailed by some capitals. In London the Foreign Office said that Britain would continue to produce nuclear material at the minimum level necessary for weapons and naval reactors. Colonel Andrew Duncan of the London-based International Institute of Strategic Studies said Britain and France need plutonium for new generations of submarine-launched nuclear warheads.

It also looks like the recent American initiative to stop the production of uranium and plutonium for weapons does not fully correspond to the most topical task of today which is to stop all the nuclear explosions. Unfortunately, Washington has fallen behind other nuclear powers in this sphere. If the United States gave support to the moratorium on nuclear tests, which is observed by Russia and France, it would be a major contribution to curbing the proliferation of weapons of mass destruction.

#### **'Major Initiative'**

*LD1407224192 Moscow Radio Moscow World Service in English 1710 GMT 14 Jul 92*

[Commentary by Yuriy Solton]

[Excerpt] President George Bush has announced that the United States is stopping the production of plutonium and highly enriched uranium and is urging other countries to enhance the existing measures on the non-proliferation of weapons of mass destruction as well as missiles and missile technology. Notes on the score [as heard] from our observer Yuriy Solton:

The American president has advanced a major initiative. The statement of the Russian president's press center

circulated in Moscow on Tuesday says that the significance and scale of the proposed action give no rise to doubts though it should be thoroughly studied by experts.

I would like to remind you that three years ago the former Soviet Union stopped the production of enriched uranium and began to close down reactors for the production of plutonium. Russia is keeping up the policy as the successor to the USSR. Just as Washington, Moscow is concerned also about the risk of proliferation of weapons of mass destruction. This is a paradox as a result [as heard]. Russia and the United States agree on a two thirds reduction of strategic, most destructive nuclear forces. Britain and France are reducing programs for the production of nuclear weapons. A draft international convention is ready to ban chemical arms and to destroy their stockpiles. But, there are expanding possibilities for other countries to produce or get hold of weapons of mass annihilation and delivery vehicles.

Mr. Bush said quite justifiably that in this world where regional tension might unpredictably grow into war such armaments could cause destructive effects and menace international security. It's important that the United States, number one arms exporter, has now recognized the need to intensify national control over the sale of military and dual purpose goods. Such measures are also being taken in Russia.

One can understand the anxiety over the recent stance of the other three former Soviet republics besides Russia where nuclear weapons have been deployed since the break-up of the USSR. The situation has now been clarified. Ukraine, Byelarus, and Kazakhstan have become full-fledged participants, along with Russia, in the treaty with the United States, in reducing strategic offensive weapons, and pledged their firm intention to join the nuclear non-proliferation treaty. [passage omitted]

#### **Favorable Conditions Foreseen**

*LD1407160592 Moscow Mayak Radio Network in Russian 1530 GMT 14 Jul 92*

[Text] The press service of the president of Russia has circulated a statement in connection with the U.S. President's initiative in the field of non-proliferation of nuclear weapons and missile technology. President Bush's initiative creates more favorable conditions for implementing the U.S.-Russian joint decisions on reducing the level of nuclear armaments.

#### **Russia Reacts Positively**

*OW1407161092 Moscow INTERFAX in English 1600 GMT 14 Jul 92*

[Transmitted via KYODO]

[Text] The press secretary to the Russian President Vyacheslav Kostikov said U.S. President George Bush's initiative on the non-proliferation of weapons of mass

destruction creates "more favorable conditions under which to implement the U.S. and Russian agreement to reduce nuclear weapons". The statement issued by the press service in Moscow Tuesday said that reveals the "objective link in efforts for the reduction and control over the non-proliferation of weapons of mass destruction".

The statement says that initial analysis of the American proposal shows that focus is given to a large initiative, the significance and scale of which raise no doubts. As for the specifics and intricacies of the problem, touching the key points of national security, the initiative must be closely analyzed. As soon as an expert evaluation has been made, Russia will send the U.S. a comprehensive answer.

The statement said that the U.S. initiative indicates "the need to ban underground nuclear testing, which Russia is calling for".

The Russian side noted with pleasure that George Bush took an important step after his recent meeting with the Russian President in Washington, where breakthroughs were made in disarmament. "This initiative strengthens the constructive logic of relations between the United States and Russia", the statement said.

#### **Russia Adopts Ballistic Defense Plan With U.S.**

*LD1407205192 Moscow ITAR-TASS in English  
2024 GMT 14 Jul 92*

[Text] Moscow July 15 TASS—Russian and American high-level delegations adopted a joint statement on Tuesday which envisaging further approaches towards creating a joint global system of defense against ballistic missiles. The statement said the two countries are now facing a new situation in the world which is characterised by the end of cold war and confrontation. The two sides noted, however that a threat the world is facing has not reduced because of ease of access to ballistic missiles.

Russia and the U.S. have agreed to create three groups of experts which will work out a global defense concept, a concept on cooperation in technology and a concept on non-proliferation.

The delegations agreed the groups will hold their first sessions soon. The delegations agreed also to coordinate and control the three working groups.

#### **Russian Minister Discusses Foreign Arms Sales**

*LD1507144292 Moscow Radio Moscow World Service  
in Arabic 1300 GMT 13 Jul 92*

[Report on an interview with Foreign Economic Relations Minister Petr Aven, by correspondent Nikolay Gelitka in Moscow; Aven remarks recorded in Russian with superimposed Arabic translation; date not given]

[Excerpts] [Announcer] So frequently Russian and foreign newspapers publish material on the Russian arms

trade, and these materials present a tableau of many colors, starting by accusing the Russian government of not supervising arms which it exports, and ending by alleging that nearly half of the Russian tanks, airplanes, and missiles have been sold abroad.

Our parliamentary correspondent Nikolay Gelitka took the opportunity of the presence of Petr Aven, Russian minister of foreign economic relations, last week in the parliamentary discussions over the budget and taxes, and asked him a number of questions on this issue. The following are his answers to these questions.

Petr Aven answered the question: What is the principle which the Russian government follows when selling arms abroad, by saying:

[Aven] We start from the premise that arms are a commodity which could be sold and bought, and money could be obtained from that. [passage omitted]

[Announcer] Our correspondent then asked: To which countries, including the Arab countries, does Russia intend to sell arms?

[Aven] We adhere to, as we shall always adhere to, the principle of not exporting arms to countries where there are, or could be, conflicts. In other words, we adhere to all the requirements of the UN recommendation and embargo lists. We have abandoned the ideological principle for exporting arms, and we can not export them to any interested country, but as I have said, in conformity with the UN recommendations and embargos. Among the Arab countries to which we decline exporting arms for well-known reasons are Iraq and Libya.

As for the rest of the Arab countries, we are prepared to talks about selling our arms to them, but the dialogue should not revolve around selling arms on credit, as we used to do in the past, but for immediate cash in a hard currency, or if it suited us by bartering on an international level, according to a clear schedule for the implementation of the contract's commitments.

[Announcer] In reply to a question about the new markets for selling Russian arms, including Arab markets, the minister said:

[Aven] Concerning the new countries, and the new markets to promote arms sales, there are no big changes, or new discoveries, to the extent that I can say that not so many new clients have appeared, and numerous contracts for billions of rubles have not materialized, as the newspapers sometimes say, but this interest in us is great, and the Arab countries which never bought our arms are also showing interest in that, such as Oman, the UAE, Qatar, and Saudi Arabia.

**Economist Argues Case for Arms Exports**

*PM1007154692 Moscow ROSSIYSKAYA GAZETA  
in Russian 10 Jul 92 First Edition p 3*

[Article by candidate of Economic Sciences Sergey Aki-mov, plus editorial postscript, under the rubric "Conversion": "If People Are Buying Weapons, Someone Has To Sell Them"]

[Text] Today, when the question "to be or not to be" has to be answered for our defense complex, the problem of evaluating the expediency of exporting our country's arms is very acute. On the one hand, the Russian leadership has apparently recognized the importance of these exports in extricating the country's economy from the crisis, as recent statements by President B.N. Yeltsin and members of the government attest. On the other hand, certain public circles are actively advocating that this form of business be restricted, expressing an extremely negative attitude to it.

For instance, A.V. Yablokov, Russian Federation state counselor on policy in the sphere of ecology and health care, notes that "the large-scale trade in weapons lessens incentives to convert weapons production and only prolongs the agony of the militarized economy" (IZVESTIYA, 23 April 1992). Ye. Aleksandrov, corresponding member of the Russian Academy of Sciences, and Professor V. Kolbin stress that exporting the output of our defense sector "feeds conflicts" (IZVESTIYA, 16 June 1992) and is therefore inhumane. Furthermore, the authors add, excessive weapons sales have led to a situation where these weapons start being fired against their own people.

These arguments are entirely justified in the global international context. But in relation to the country's internal problems, a number of significant points have not been taken into account here. After all, exportation is a multifaceted process, and in order to assess its expediency it is necessary to take into account various factors—military, political, and economic.

As for military-political factors, arms sales and the creation of a reliable support system to ensure its proper functioning enable supplier states to strengthen their positions in various regions of the world in accordance with their national interests.

From the economic viewpoint the fulfillment of export orders is an important means of maintaining the optimum workload in the military industry, preserving employment, and obtaining additional currency, as well as reducing expenditure on the acquisition of weapons for the national armed forces.

This is particularly relevant to our defense industry, whose capacities exceed our own army's requirements; which was historically the focus of the best intellectual and technological resources; and which finds itself in a critical position due to an ill-considered "disarmament" campaign and drastic restrictions on state finance. One

might have hoped that the crisis itself would push our defense sector toward large-scale conversion. But, conversion needs vast resources, which are not available. However, the necessary depth of conversion has yet to be determined, in the absence of a Russian military doctrine. In these circumstances large-scale conversion could undermine the country's defense sufficiency, yet the situation today is marked by instability and armed conflicts in "hot spots" both in the CIS and worldwide.

Therefore, the most rational solution today is the effective exportation of our arms, and this must, of course, be carried out taking into account all national commitments and international accords. We must soberly recognize that the output of the Russian defense sector belongs to that small group of items which, like raw materials and energy resources, are in high demand on the world market. Selling it sensibly could help resolve the problems of the military-industrial complex itself, and of the country's economy as a whole.

It is no accident that in virtually all the leading Western countries very keen attention is devoted to building up the export potential of the military industry. Weapons exports are regarded as a very important means of maintaining the industry's potential. Even in the period of disarmament. Thus, in the United States in the current decade the proportion of total military output that goes for export will increase to 20-25 percent, compared with 11 percent in 1982-1988. In Britain the proportion of military output exported is reaching 25-35 percent; in France it is 40 percent, in Italy 57 percent, and in the FRG 20-25 percent. Even in peaceful Austria and Switzerland, which are centers of disarmament talks, 85 percent and 25 percent respectively of the military output produced in those countries is exported.

Nor should we reject the realities. It should be admitted that these inhumane exports are determined by demand on the international market. It should be realized that unilaterally refusing to sell weapons will not set an example for the many other suppliers, it will only exacerbate our own position. Russia's place will be taken by competitors. In fact, this is already happening. The ending of our deliveries to Libya is being compensated for by an increase in exports of Chinese weapons to that country; in Finland and the East European countries Soviet models of arms are beginning to be replaced by Western—mainly American—models. This turn of events is leading to economic losses for us, and also to an expansion of the presence of leading Western countries in regions directly adjacent to Russia. Along with our own weapons, Romanian weapons are widely used in Moldova, and Iranian and Turkish weapons in Transcaucasia.

The problem of restricting the proliferation of weapons in the world, which rightly worries the world public, can only be tackled on a joint basis, taking into account the opinion of both producers and consumers. If Western countries are really so worried about the militarized nature of our economy, they should take an active part in

financing Russian conversion programs. Otherwise the production and export of high-tech defense products should be seen as our speciality within the framework of the international division of labor.

The main thing, where this problem is concerned, is not to allow uncontrolled and unregulated arms exports, which could undermine Russia's prestige in the world and damage its national interests. It is therefore necessary as soon as possible to draw up a normative base clearly regulating all aspects of activity in the sphere of the weapons trade, formulate a state policy defining the main priorities, and in general create a well-oiled mechanism of state monitoring of this difficult form of business. [Akimov ends]

From the editorial office: In publishing this article we realize that other views of the problem of the weapons trade exist, some of them diametrically opposed. In today's world there is obviously no wholly satisfactory solution to this problem, however. It can only be a question of minimizing the inevitable costs. Here every authoritative opinion is certainly useful—whether “for” or “against.”

#### **Export Control Commission To Control Transfers** *OW1707032492*

[Transmitted via KYODO]

[Editorial Report] Moscow INTERFAX in English, as received via Tokyo KYODO at 1608 GMT on 16 July, transmits its 17 July “Trade & Investment” feature. Within the “Headline News” section of the weekly feature, INTERFAX carries 13 reports, the highlights of which include the following:

According to INTERFAX, the Export Control Commission “will have the task of devising a system of controls over the export activities of (primarily) defence enterprises undergoing conversion, that would both safeguard the interests of the state and ensure compliance with international commitments related to the non-proliferation of weapons of mass destruction.”

Also carried in the latest “Trade & Investment” feature is an 80-word report on Armenia's introduction of a single procedure for licensing exports. According to INTERFAX, the new procedure, which was introduced on 14 July, requires export licenses for the following goods: “non-ferrous metals and ores, berlite, red tufa, granite, marble, brandy, textile products, natural and artificial precious stones, jewelry, synthetic corundum, scrap of valuable metals, medicines, and wild animals and plants registered in the Red Book of Armenia.” This report goes on to say that the licensing requirement also applies to foreign firms and joint ventures operating in the republic, adding that exports of ammunition, military hardware, explosives, radioactive materials, poisons, and narcotics will require “special permission” from the government.

#### **Russia Nuclear Test Moratorium Expires Soon**

*LD1607060892 Moscow Russian Television Network in Russian 1900 GMT 15 Jul 92*

[Report by correspondent O. Sergeyeva; from the “Vesti” newscast]

[Text] As is known, the dateline of the moratorium declared by Russia on nuclear tests runs out in October. In early autumn the deputies will have to discuss the issue of the expediency of the Novaya Zemlya nuclear testing ground functioning, although in northern Komi, which gets the main part of the radioactive contamination, a decision of the Supreme Soviet exists which unambiguously expressed its opposition to the nuclear tests on Novaya Zemlya. At the congress of the Komi people this decision was upheld by local parliamentarians. Nonetheless the draft decision of the government on measures providing for the conducting of nuclear tests exists.

#### **Reports on World War II Chemical Weapons Dump**

##### **‘Frightening’ Dilemma**

*PM1607141392 Moscow KOMSOMOLSKAYA PRAVDA in Russian 16 Jul 92 p 2*

[Article by I. Rudnikov: “Where Are the Wehrmacht's Chemical Munitions?”]

[Excerpt] Some 17 underground storage facilities “inherited” from the German Army in 1945 are located on the territory of the Baltic Fleet arsenal. There are 100-150 carloads of different munitions there. Their condition is frightening. The question of clearing the storage facilities and moving the captured munitions further away from the city is not on the agenda. The conclusions reached by all the special commissions over the past 40-odd years have been unambiguous: It is better not to touch the storage facilities at all, because they could “blow up” at any time.

The consequences of such an explosion are hard to calculate. The Baltic Fleet Headquarters is not ruling out the possibility that a large proportion of the Wehrmacht's chemical weapons—which are still being sought for some reason on the floor of the Baltic—are located there. [passage omitted]

##### **Russia To Search Baltic**

*LD1407195992 Moscow Radio Moscow World Service in English 0700 GMT 14 Jul 92*

[Text] A Russian expedition is making the final preparations for looking for and examining toxic chemicals buried on the bottom of the Baltic Sea right after the Second World War. The chemical warfare agents were captured from Nazi Germany and under agreement with the United States and Britain the Soviet Union dropped them in special containers in the Baltic Sea. However,

decades later there has emerged a threat that the containers may be destroyed, which can lead to ecological disaster. Research vessels to do the job have the equipment to spot the chemical munitions deep in the silt on the sea bottom and to lift them safely to the surface.

### **Krasnoyarsk Nuclear Reactor Staff To Strike**

#### **Threaten Worldwide Appeal**

*OW1207122692 Moscow INTERFAX in English  
1541 GMT 11 Jul 92*

[Transmitted via KYODO]

[Text] In the town of Krasnoyarsk-26 the operators servicing two nuclear reactors, one of which produces plutonium for nuclear arms, are about to go on strike and leave their places of work, said V. Safronov, chairman of the local council of people's deputies, and G. Goldobin, chairman of the local trade union committee, in their cable to President Boris Yeltsin.

Krasnoyarsk-26 is a closed town in Krasnoyarsk Territory in the south of Western Siberia. It houses a powerful nuclear facility. Under traditions of secrecy inherent in the former USSR the town figures on no map.

According to the local authorities, the crisis was brought about by the fact that the workers of the nuclear facility have not been paid their wages for three months.

The average monthly wages in the city whose population makes up 100,000 are 2500 rubles, and more than 260 million rubles are required to pay them.

The leaders of the facility and the town authorities say that they are not in a position to prevent the workers from leaving their jobs. The situation might become dangerous: the technology of nuclear production necessitates the constant presence of operators.

If the problem of cash is not resolved in the next few weeks, the inhabitants of the closed town will reserve the right to appeal through foreign news media to the world public for financial aid, says the cable addressed to the Russian president.

#### **Additional Wages Sent**

*LD1307174992 Moscow ITAR-TASS in English  
1240 GMT 13 Jul 92*

[By ITAR-TASS correspondent Pavel Ryabov]

[Text] The Central Bank of Russia will send an additional 50 million roubles to two nuclear cities in Krasnoyarsk which went on strike footing for non-payment of full wages in the last three months.

"The situation with cash is not that dramatic there", Andrey Buravtsev, head of the bank's emission department told TASS on Monday.

On July 4 and 5 the Central Bank supplied the Krasnoyarsk-26 and Krasnoyarsk-45 nuclear cities with 40 and 30 million roubles respectively, he said, and the additional 50 million roubles will make all payments possible.

The personnel of the Krasnoyarsk chemical enterprise, producing plutonium for military purposes, is on a strike footing as the deficit of cash money in the city has aggravated of late, despite a government decision that nuclear energy enterprises should have priority with cash provisions.

In April each worker received only three thousand roubles, while in May that figure dropped to two thousand and only half of the workforce was paid.

"We can get a second Chernobyl here", director of the enterprise Valery Lebedev told TASS on Monday. "Workers servicing a nuclear reactor and irritated by hardships of life can be unpredictable in their actions" he warned.

### **Arkhangelsk Cleans Up Nuclear Submarine Accident**

*LD1607061392 Moscow Russian Television Network  
in Russian 1900 GMT 15 Jul 92*

[Report by correspondent V. Loyter; from the "Vesti" newscast]

[Text] Arkhangelsk oblast, that is a huge megapolis where the most modern means of mass destruction are concentrated ranging from the nuclear testing ground on Novaya Zemlya to modern nuclear submarines and the launching of space rockets. Both the Army and the Navy are trying to help avoid an (?unexpected) cataclysm.

[Begin recording] [O. Yerofeyev, commander of the Northern Fleet] We are starting major exercises to eliminate the consequences called forth by an accident on the nuclear power installation in the submarine. Major forces of the chemical service of the Northern Fleet, of the Moscow military district, and forces from the local civil defense are involved in this exercise. We regard this exercise as extremely pressing in connection with those events which you know took place at the Chernobyl nuclear power station. [end recording]

A new nuclear submarine is leaving the slips of the Severnyy machine building enterprise and one is very anxious that a tragedy like that of the Komsomolets should not occur again and that these hose pipes should only be used in exercises.

### **Ukraine Continues Considering Nuclear Weapons**

*LD0907202192 Moscow ITAR-TASS in English  
1905 GMT 9 Jul 92*

[By ITAR-TASS correspondent Valeriy Shashkov]

[Text] Brussels July 9 TASS—Ukrainian President Leonid Kravchuk said he will neither idealise nor discount the Commonwealth of Independent States.

"No organisation of such a size and with such a heritage could effectively function in six months after its creation," Kravchuk said in an interview with the Belgian newspaper "LE SOIR."

Kravchuk reiterated Ukraine's adherence to the idea of a nuclear-free state but said that it will continue taking part in decisions considering nuclear weapons.

By signing the Lisbon agreement, Ukraine, like other nuclear republics of the former Soviet Union, committed itself to the Strategic Arms Reduction Treaty, Kravchuk said.

Speaking about relations between Russia and Ukraine, Kravchuk said the Black Sea Fleet is no longer in dispute, adding that the two states are seeking to resolve the remaining minor problems.

Kravchuk also said there is no "Russian problem" in Ukraine and that there never will be.

#### **CIS, Ukraine Differ on Nuclear Armaments**

*OW1707083392 Moscow INTERFAX in English  
0754 GMT 17 Jul 92*

[From the "Problems and Opinions" feature: "The Nature of the Disagreements Between Ukraine and the Chief Command of the CIS Joint Armed Forces on Strategic Nuclear Armaments"; transmitted via KYODO]

[Text] Interviews given to our correspondent Marina Chernukha by Ukrainian First Deputy Defense Minister Ivan Bizhan and the commander-in-chief of the Joint Armed Forces of the CIS, Yevgeniy Shaposhnikov.

[Marina Chernukha] Correspondent: As far as I can see, the ultimate reason for Marshall Shaposhnikov's objections is that the missiles stationed on your territory are not his responsibility since they are going to be formally controlled by Ukraine. Could you explain Ukraine's position on this issue?

BIZHAN: Although Ukraine is not a nuclear state, it has found itself in a position where it has nuclear weapons stationed on its territory. So you can't expect Ukraine to take no interest at all in what will be happening to these weapons. It certainly matters to us whether missiles will be launched from our territory. We firmly intend to keep to the terms of START 2, which calls for the consistent reduction and elimination of nuclear weapons. So we want not only the nuclear warheads but also the booster rockets to be removed from our territory.

Corr.: Some time ago Ukraine insisted on becoming a nuclear-free state in 1994. What made you decide afterwards that it needed as long as seven years to attain this status?

BIZHAN: You see, when the experts had done all the calculations it became clear that it was impossible to remove all strategic nuclear forces from Ukraine by 1994. So the reason for our decision was purely technical. Nor does this contradict START 2.

Corr.: Why can't you accept detargeting and the removal of the nuclear warheads if they are to be replaced with nonnuclear equivalents?

BIZHAN: Because the problem should be solved consistently: if you remove the warheads you should dismantle the boosters immediately after that. Of course, it would be the easiest thing for Shaposhnikov to do to remove all the warheads and take them out of Ukraine. Whereas Ukraine will be left with those boosters which are quite dangerous if the warheads are removed.

Corr.: Are you not convinced that Marshal Shaposhnikov will keep his promise to dismantle the boosters after replacing the nuclear warheads with nonnuclear equivalents?

BIZHAN: I'm not entirely convinced—let's put it like this. Some time ago the Council of Heads of State instructed Shaposhnikov to provide the Ukrainian President with technical means to prevent nuclear weapons stationed on our territory from being used. He promised he'd get everything done in a month. It's been six months now, and nothing has been done. More than that, he's now saying this is unfeasible anyway.

Corr.: Would you consent to the detargeting of the missiles?

BIZHAN: That's up to Maximov and Shaposhnikov. If they think that's the most important thing to do, let them do it. We won't object.

#### **We thought we ought to ask Marshal Yevgeniy Shaposhnikov to comment on this interview**

SHAPOSHNIKOV: It is true that it was suggested in Alma-Ata some time ago that the presidents of CIS states be provided with means to prevent nuclear weapons stationed on the territory of their states from being used. I said during the discussion that we would think about it. First of all, we established a kind of hot lines among all presidents. Each president can now make use of such a line to voice his disagreement with the rest on any military matter. We think this is quite enough. What Ukraine demands effectively means its joining the system of technical control of nuclear weapons, in which case the world would regard it as a nuclear state. So Ukraine should first of all decide whether it wants to be a nuclear or nonnuclear power.

I would actually like another hot line to be established, one between President Leonid Kravchuk and the commander of the strategic forces in Ukraine, so that the latter could also take part in making decisions on strategic armaments. As for the complaints of the Ukrainian Defense Ministry, I've never made any such promises.



We did talk about this but all I promised was to study the problem and report on the results.

Corr.: What do the Ukrainians think of your proposals?

SHAPOSHNIKOV: We informed the Ukrainian President and Defense Minister about them. They accept the proposals on the whole but insist on a stronger prevention mechanism. At the moment we're having discussions with them.

As for Ivan Bizhan's claim that we won't have enough nonnuclear equivalents to replace the nuclear warheads on the same boosters, it's groundless because we have a concrete program which we intend to carry out with the participation of Ukraine and under its control. First of all, we would detarget part of the missiles, remove the warheads from them, take them out of Ukraine and replace them with nonnuclear equivalents.

Then, with the participation of Ukraine and Russia, we would remove the boosters from Ukrainian territory. After that we would do the same with another part of the missiles, and so on. In this way we could solve the problem completely by the end of 1993 and make Ukraine an entirely nuclear-free state, which is what it wants.

Corr.: Bizhan says this is technically unfeasible.

SHAPOSHNIKOV: No, all of this is feasible. I actually have the impression that the strategic armaments issue became a trump card for the Ukrainian nationalists when confrontation began between Russia and Ukraine over the Crimea and the Black Sea Fleet.

Corr.: Is it true that boosters will be dangerous after the nuclear warheads are removed and not replaced with nonnuclear equivalents?

SHAPOSHNIKOV: To some extent it is. There can, for example, be fuel leakages, although there can be no explosions. But boosters are, of course, more dangerous with nuclear warheads than with nonnuclear equivalents.

Corr.: Ukraine has apparently no objection to the detargeting of the missiles. Does that solve most of the problems?

SHAPOSHNIKOV: No. Some independent experts have estimated that a state like Ukraine is able to develop its own targeting system within a few years. So we'll insist on detargeting.

#### **Russia Envisages Delay in Destroying CW**

*PM1207145592 Moscow KRSNAYA ZVEZDA  
in Russian 10 Jul 92 p 3*

[Article by Major M. Zheglov: "Russia Will Definitely Destroy Its Chemical Weapons. But Not Just Yet"]

[Text] Work on the draft Convention on the Total Prohibition and Elimination of Chemical Weapons has

ended at the Geneva Disarmament Conference. According to preliminary assessments, it will be signed by the European countries, the United States, Canada, Japan, and many African, Asian, and Latin American states no later than the start of next year. The signatories will undoubtedly include the Russian Federation, the possessor of the largest stocks of this type of weapon of mass destruction today. Furthermore, Russia, as legal successor to the former Union, must begin the destruction process no later than 31 December 1992. That is enshrined in the Soviet-U.S. agreement signed two years ago. But it will not begin by then.

According to Anatoliy Kuntsevich, chairman of the Russian President's Committee on the Conventional [konventsionalnyy] Problems of Chemical and Biological Weapons, this is because before this year we had no organ with responsibility at state level for preparing for the destruction of chemical weapons. The Defense Ministry, the Chemical Industry Ministry, and a number of others prepared a full-scale state program for their elimination. The program was sent to the Union Supreme Soviet and a report was sent to the USSR president. But for a whole series of objective and subjective reasons the program was not approved and the resources were consequently not allocated. So there is no question of its implementation today.

After the USSR ceased to exist the question of the legal responsibility for chemical weapons arose. On 19 February 1992 the Russian president issued a decree to resolve this problem by setting up the Committee for Conventional Problems of Chemical and Biological Weapons. Its formation, incidentally, in practice marked the completion of the creation of the system of presidential control of all types of weapons of mass destruction. The new organ immediately began to elaborate a new concept for the destruction of chemical weapons.

The concept's fundamental difference is that Russia cannot and will not embark immediately on a large-scale program for the elimination of chemical weapons. We will move toward that in stages, as Anatoliy Kuntsevich stressed, by creating a structure of installations which would not be such a burden to the Russian economy. Specialists believe that some of the resources thus expended could be recouped.

Efforts, of course, will be concentrated on ensuring that the reaction products [reaktsionnyye massy] produced as a result of neutralizing the toxic substances involved will not be incinerated but will be used to resolve a number of technical tasks linked to the creation of solutions with a whole series of complex characteristics—fireproofing, antiseptic, and anticorrosion characteristics. There are other, larger projects for the recycling of, for example, lewisite which will help to provide our microelectronics industry with raw materials for at least 15 years.

During the first stage the plan is to convert several chemical-weapons production enterprises to chemical

weapons destruction. On the one hand, these installations are ready right now and their upkeep will not require additional spending. On the other hand, a high degree of safety is guaranteed there, everything has been checked out in real-life conditions. At the same time, a mobile complex will operate which, when necessary, will make it possible to increase the amount of chemical weapons being destroyed. Finally, as part of the first stage a center is being created to ensure monitoring, including at international level, of the process of the elimination of toxic substances.

Incidentally, we will not only be monitored but given certain assistance within the framework of cooperation. It is planned, for example, that U.S. specialists will take part in devising the best techniques for the destruction of chemical weapons. They will support those techniques with more productive and reliable systems, more hermetically sealed and protected equipment, and automation and control systems.

If everything goes off without a hitch, that is, if the plan for the destruction of chemical weapons is adopted by all the interested sides and, most important, is financed, the first tonnes of chemical toxins should be destroyed by the end of 1993 or early 1994. Accordingly, the timetable for the final elimination has been put back some years. This should not be seen as a major tragedy, however. People abroad understand perfectly well all the complexities of the present economic situation in Russia. They can see that our specialists are working on real preparation for the destruction of this type of weapon of mass destruction.

It is highly likely that the problems involved in the implementation of the program for the elimination of 40,000 tonnes of chemical toxins will occur not so much abroad or in the economic sphere as in people's minds. People still remember the events at the installation in Chapayevsk, where the local authorities and the public stopped it from functioning. This factor is taken into account in the elaboration of the new program for the destruction of chemical weapons.

Its implementation is dependent on the commitment of the local authorities and the population. This commitment takes the following form: In zones where fixed or mobile chemical weapons destruction complexes are to operate, citizens and property must be given guarantees of insurance, effective medical monitoring and support must be provided, and systems and centers must be set up to keep the population informed. Improvements to the social infrastructure of these regions are also envisaged. In this regard it is planned that investments in the interests of the local organs of power will amount to 30 percent of the total investment in the program. The interests of those participating in the elimination of the chemical toxins have not been forgotten either. Plans for them include quite high wages, the solution of the housing problem, and so forth.

These measures combined with safety guarantees and an extensive information campaign should help to alleviate the population's psychological stress, and the implementation of the program will begin on time. Especially since the Americans have evacuated their own chemical weapons right across Europe and the Atlantic without incident, and are destroying them safely.

#### **UN Cannot Confirm Armenian Use of Chemical Arms**

*LD1407143692 Moscow Russian Television Network  
in Russian 1000 GMT 14 Jul 92*

[From the "Vesti" newscast]

[Text] The commission of UN experts has failed to confirm Baku's assertions that the Armenian Armed Forces used chemical weapons. Azerbaijan is taking all munition depots on the republican territory under its protection. This decision is motivated by the desire to nip in the bud any attempts to destroy arsenals belonging to the CIS troops.

#### **UN To Assess Chemical Arms Use by Azerbaijanis**

*NC1307163892 Yerevan Armenia's Radio First  
Program Network in Armenian 1730 GMT 12 Jul 92*

[Text] A group of UN experts has arrived in Yerevan at the invitation of President Levon Ter-Petrosyan to study the use of chemical weapons by the Azerbaijanis during the Armenian-Azerbaijani clashes.

#### **Kazakhstan Observes Timetable To Eliminate Nukes**

*LD1607141192 Moscow ITAR-TASS in English  
1254 GMT 16 Jul 92*

[By KAZTAG correspondent Ivan Zakharchenko for TASS]

[Text] Alma Ata July 16 TASS—Strategic nuclear missiles, still deployed in Kazakhstan, are under reliable control of its Defense Ministry. The timetable for their elimination, envisaged by appropriate agreements, will be strictly observed. This statement was made on Thursday by State Advisor Tulegen Zhukeyev and Defense Minister of Kazakhstan Colonel General Sagadat Nurmagambetov at a meeting with a visiting delegation of the U.S. Defense Department.

Speaking about the problems of establishment of Kazakhstan's Armed Forces, Nurmagambetov emphasised that they will consist of small but highly mobile forces. The defense minister noted the significance of the treaty with Russia which provides for Russian assistance in solving that problem.

The delegation also met Kazakh Prime Minister Sergey Tereshchenko.

**No Chemical Arms in Fires Raging in Baltic States***LD1407115792 Moscow ITAR-TASS in English  
1134 GMT 14 Jul 92*

[By ITAR-TASS diplomatic correspondents Sergey Skripnikov and Sergey Staroselskiy]

[Text] Moscow July 14 TASS—There are no Russian nuclear or chemical arms on the territory of the Baltic states, spokesman of the Russian Foreign Ministry told reporters at a briefing on Tuesday.

Sergey Yastrzhembskiy made the statement in connection with concern expressed by government circles and mass media of northern Europe that fires raging in the Baltic states threaten ammunition dumps of the Russian Army deployed there. It was claimed the dumps might contain nuclear and chemical arms.

**Nuclear Terrorism Threat Assessed***PM1407102492 Moscow ROSSIYSKIYE VESTI  
in Russian 14 Jul 92 p 2*

[Article by Sergey Ovsienko and Nikolay Rafayenko: "Are There Any Guarantees Against Nuclear Terrorism?"]

[Excerpts] Every one of us could fall hostage to nuclear blackmail. Society ought to know the nature of the threat, so as to ward it off in time.

In a situation in which many people are dissatisfied with the existence of AES's [nuclear power stations] in principle, various political and even criminal associations of individuals are inwardly prepared to use AES's to blackmail their governments, and certain AES's, such as the Armenian, could at any moment find themselves in a zone of hostilities, we should give serious thought to the safety of our nuclear facilities. They are already in real danger. The operational personnel at the Armenian AES, for instance, received letters on a number of occasions in 1990 in which the "people's avengers" threatened their children and grandchildren if their demands are not met. According to the Russian Security Ministry's information, the leadership of the Kursk, Rostov, Smolensk, and other AES's received letters on a number of occasions in 1991 containing threats of a terrorist nature and warnings of an explosion. [passage omitted]

Is it in the terrorists' power to create a nuclear device themselves? According to a study by the U.S. Rand Corporation expert group on terrorism, there is sufficient technical information in the mass media and in various popular publications to manufacture a small nuclear device, provided you have certain knowledge.

The materials can be obtained comparatively easily on the "black market" for weapons, or else stolen. In Britain, for instance, for several years now they have been looking for 16 km of 90-percent enriched uranium mixed oxide which disappeared, no one knows where to. Experiments in the United States have shown that a nuclear device can be made by using reactor plutonium from ordinary AES's without the need to obtain enriched uranium.

The possibility is not ruled out of an attack on transport facilities carrying nuclear waste with the threat to blow it up in order to contaminate the environment. Cases have already been recorded in the world where terrorists tried to disperse plutonium via ventilation channels and the water supply (in Rome in 1974, and in New York in 1985).

Can our state guarantee its citizens' safety against nuclear terrorists?

Throughout the world the special services are working on such cases, exposing possible preparations for such actions from "a long way off." All AES employees undergo thorough preliminary investigation before being accepted for work, and the national security services closely monitor their day-to-day activity.

Within the structure of the Russian Federation Security Ministry and the Russian Federation Ministry of Internal Affairs there are special subunits for combating terrorism, including nuclear terrorism, and special regimes exist for the physical protection of nuclear materials. Special units are on guard at nuclear facilities....

But, there is a paradox here. Under USSR Council of Ministers Directive No. 572 of 12 April 1990, the financing of these special subunits is the responsibility of the nuclear facilities that they guard. But can AES's, for instance, maintain these units, provide for their professional training, and improve the protection regime, when, like many other industrial enterprises, they are in a difficult financial position? Experience suggests that the answer is no. Some nuclear facilities have long since ceased to be the impregnable fortresses they were five to 10 years ago. Even well equipped staffers of special subunits who have not been trained in realistic conditions (this again requires financial expenditure on the part of the nuclear facilities) are not secure against irremediable mistakes which will cost us all dear.

As the saying goes: Do not spoil the ship for a hap'orth of tar. Is it really beyond our powers to create an effective professional system for protecting nuclear facilities and formalize it in legislation?...

## GERMANY

### Illegal Arms Exports to Iraq Detailed

AU1307153392 Hamburg DER SPIEGEL in German  
13 Jul 92 pp 60-64

[Unattributed report: "Properly Packed Up"]

[Text] The police helicopter first hovered above the premises of the Degussa AG company at Frankfurt, before turning to the Leybold AG company at nearby Hanau. Subsequently, the helicopter moved north, to the seat of the Arthur Pfeiffer Vakuumtechnik Wetzlar GmbH. On board the helicopter were customs investigators who filmed all the buildings.

Air reconnaissance was part of five months of preparations for the biggest search of the past few years. On Tuesday [7 July] morning, more than 420 officers in five laender searched the headquarters and branch offices of nine enterprises. The plan for the operation, masterminded by the Darmstadt state prosecutor, filled as many pages as a film script.

It was the script about yet another arms affair, which have kept the officers, judges, and entrepreneurs in the industry in suspense since the late eighties: The investigators were looking for new evidence for banned arms exports to Iraq; this time it involved the German participation in the construction of a nuclear bomb.

It is suspected that, over the past few years, the companies involved supplied Baghdad with components suited to assemble a gas ultracentrifugal machine. With the help of such devices it is possible to enrich Uranium 235 to over 90 percent—and the result is the stuff the bomb is made of.

The investigations, headed by a special unit ("Nuclear Special Committee"), are the result of international cooperation. In December 1991, the International Atomic Energy Agency, IAEA, informed German authorities about certain findings in Iraq.

One expert stated that "we found the fingerprints of German enterprises at all the nuclear plants." IAEA inspector Maurizio Ziffereto presented a comprehensive catalogue of questions to the German Embassy in Vienna at the time.

Less than four weeks later, UN official Robert Gallucci was supplied with information from customs experts of Federal Finance Minister Theo Waigel, of the Christian Social Union.

A German company exported 84 tonnes of pipes made of an aluminum alloy to Iraq, enough to build 6,000 molecular pumps. These pumps prevent the gaseous uranium hexafluoride from penetrating the vacuum area between the rotor of the gas centrifugal machine and its outer shell.

According to the Finance Ministry specialists, another 300 tonnes of such pipes were supplied by another German company. Those pipes were used to construct the outer vacuum-tight shells for the rotor. There were enough pipes for 2,500 gas ultracentrifugal machines.

Bonn's report impressed the Iraqis. When the United Nations confronted them with the new findings they admitted to having received the goods from Germany.

Gradually, the UN envoys discovered essential parts of Iraq's nuclear plans, which were kept strictly secret by Baghdad.

One and one-half years after the end of the Gulf war, German judicial authorities have to deal with the misdeeds of those who supported Iraq. Leading industrial companies are involved in the scandal, and quite a lot is at stake for certain firms.

### Hot Stuff for Iraq

Important proceedings against German exporters and sub-suppliers:

#### —Military research

Gildemeister Projecta GmbH: military research plant Saad 16 in Al-Mawsil (worth DM1.6 billion);

Gildemeister Projecta GmbH and MBB-Transtecnica: illegal transfer of know-how.

#### —Cannon construction

Ferrostaal, Essen: general contractor;

SMS Hasenclever, Duesseldorf: forging press;

Maschinenfabrik Ravensburg: rifling machines;

#### —Iraqi Scud-B Missiles

Thyssen-Maschinenbau GmbH, Witten: turbo pumps for missile driving gear;

H and H Metallform, Drensteinfurt: test press for missile engines;

Havert Handelsgesellschaft mbH, Neu-Isenburg: tools, high pressure/low-pressure units.

ABC, Anlagen Bau Contro, Stutensee: gauging equipment, testing stands.

C. Plath KG, Hamburg: missile navigation systems;

Inwako GmbH, Bonn; Klaus Weihe, Kiel: vortex units, components for turbo pumps.

Rhein-Bayern Fahrzeugbau, Kaufbeuren, igniters.

Poison Gas Research and Production

Karl Kolb, Dreieich;

Pilot Plant (under liquidation), Dreieich;

Water Engineering Trading, Hamburg;

Rininghaus-Chemie, Laatzen;

Andreas Schwarz, Laatzen;

E. Schwender KG, Ibbenbueren (proceedings were suspended);

Preussag AG, Hannover (illegal exports fall under the statute of limitation);

#### —Nuclear Plants

H and H Metallform, Drensteinfurt: flow-turn machines;

Rhein-Bayern Fahrzeugbau, Kaufbeuren, separators for centrifugal machines, toroidal tape cores.

Leybold AG, Hanau: special furnaces, welding plants;

Degussa AG, Frankfurt: special furnaces;

Arthur Pfeiffer Vakuumtechnik Wetzlar GmbH, Asslar: vacuum casting plant, special oil;

Neue Magdeburger Werkzeugmaschinenfabrik, Sinshheim: computerized numerical control (CNC) machines;

Reutlinger and Soehne KG, Darmstadt: balancing machines;

Balzars GmbH, Wiesbaden: vacuum technology;

Varian GmbH, Darmstadt: vacuum pumps;

Du Pont de Nemours, Bad Homburg: special oil for rotors;

Rittal-Werk Rudolf Loh GmbH, Herborn: control boards, drive unit cases.

If the suspected support for building the nuclear bomb is substantiated, the enterprises are threatened with severe sanctions on the U.S. market. Yet, not only the nuclear industry is keeping investigators and judges busy. The investigators are currently examining all kinds of arms, from shells to missiles with chemical warheads.

In Darmstadt, nine managers have now been standing trial for 11 weeks for suspected involvement in the construction of poison gas plants in Iraq. Numerous engineers will still be charged with having provided technological assistance for improving the Scud-B short-range missile. The Bochum land court is set to open a trial against several Thyssen managers who are charged with having exported turbo pumps to Iraq.

The Foreign Ministry must decide whether Bonn's international relations were affected by the exports of Engineer Holger Werner Beaujean. According to an expertise, the jet plant in Stutensee, Baden, supplied testing stands for missiles to Iraq.

Like Friedrich Simon Heiner, the head of the Inwako company in Bonn, Beaujean must expect to be tried this

year. For Heiner, who is said to have arranged for export or directly exported DM38 million worth in material for the Scud-B missiles, the expertise is devastating.

Meanwhile, it is undisputable that there was a cannon production plant at Taji, near the Iraqi capital of Baghdad. The plant, worth DM130 million, was supplied by the general contractor, the Ferrostaal company, a subsidiary of the MAN company in Essen.

Customs investigators of Duesseldorf and officials of the Federal Export Office at Eschborn are convinced that the various components for the plant were intended to be assembled to a cannon plant, which Ferrostaal denies.

In the next few months, the Bochum state prosecutor will decide whether or not a charge is brought in. What is unclear is whether the company will only be charged with illegal transfer of know-how or whether the charge will be based on everything it exported to Iraq.

The judicial authorities are gradually tightening the screws. In Sinshheim, Baden-Wuerttemberg, two managers of the Neue Magdeburger Werkzeugmaschinenfabrik GmbH were arrested because their company allegedly supplied Iraq with machines for the production of artillery shells.

A few years ago this would still have been treated as a violation of the regulations. For much too long, export controllers and investigators have shrunk from consistently taking action against the merchants of death.

The small H and H Metallform engineering works from Drensteinfurt in Muensterland carried out its deals for many years without the authorities intervening. As a matter of fact, the suspicion that H and H helped Iraq build its gas ultracentrifuge was publicly confirmed at an early stage. However, nothing happened and the deliveries continued.

Hints that Iraq had meanwhile acquired a share in the company were disregarded by the authorities. When stubborn investigators continued their efforts, they were laconically informed by the Muenster Finance Office that the allegations were unfounded.

So much state lethargy encouraged the owners Peter Huetten and Dietrich Hinze to launch a counteroffensive. In a comprehensive defense that was published nationwide last year, they denied any involvement in illegal arms deals with Iraq. Shortly before their arrest, they still demanded "a rehabilitation by the authorities."

This was a bit too much. Instead of an apology, they saw a visitor from Public Prosecutor's Office, who closely searched the company in February 1992. "We discovered numerous pieces of evidence," an investigator stated. Huetten and Hinze were taken into custody. In June the third criminal division of the Higher Regional Court in Hamm rejected the second appeal of the two businessmen against the remand in custody.

The judges believed that the company was seriously involved "in the buildup of a powerful Iraqi weapons industry." On 9 July 1987, for example, H and H received an order worth DM27 million covering a factory for the production of artillery shells.

On the same day, Huetten and Hinze sold 50 percent of the company's shares to an Iraqi enterprise for at least 10 years. The small firm became an internationally renowned company: The enterprise from Muenster holds a top position among the suppliers for the program of the Iraqi dictator Saddam Husayn.

The Bavarian entrepreneur Anton Eyerle also carried out extensive business with Iraqi military officials ("These are men of strong character") without the authorities intervening. Thus, Iraq ordered 240,000 magnetizable ferrite spacers for the gas ultracentrifuges.

In addition, the Bavarian company supplied 10,000 special pieces of soft iron and a machine for coil rings. This was sufficient for 10,000 centrifuges—and thus for at least five atomic bombs a year.

The Neue Magdeburger Werkzeugmaschinenfabrik in Sinsheim, which had been inconspicuous so far, was also mentioned in UN reports. According to secret documents, it supplied computer-controlled plants ("CNC" machines) by means of which it was possible to manufacture molecular pumps or rotor casings.

The fact that large enterprises like the Degussa concern and its subsidiary Leybold are also suspected of being involved in illegal deals lends new weight to investigations. Pieces of evidence were discovered at both companies last week, but both claim to be innocent.

U.S. authorities have shown interest in the two firms for quite some time. Former managers of Leybold-Heraeus participated in Pakistan's nuclear weapons program. High technology from Leybold appeared in East Bloc countries such as Romania, and the company had links with North Korea and Libya. The United States have for a long time been considering adopting trade sanctions against the two enterprises. They might be excluded from all orders placed by U.S. Government authorities.

The German Government was alarmed. Last fall, Joachim Jahnke from the Economics Ministry flew to Washington to find out more about U.S. findings concerning Leybold.

It is a complicated case. It is true that Degussa and Leybold supplied special furnaces that were apparently intended to be used for the Iraqi nuclear program. In addition, an electron-beam welding plant and a five-shaft machine tool were discovered without which the centrifuge program could not have been realized, according to UN expert David Kay.

The Leybold AG allegedly only delivered auxiliary apparatuses such as a precision laser for the welding plant, however. The other machines were made in the United States—by a Leybold subsidiary in Connecticut.

The Commerce Department explicitly permitted the export many years ago when Saddam Husayn was still a friend of the United States, without informing the CIA and the Defense Department.

#### **Four Arrested for Importing Nuclear Materials**

*LD0907160492 Hamburg DPA in German 1526 GMT  
9 Jul 92*

[Text] Berlin (DPA)—The Berlin State Prosecutor's Office has arrested a Pole and two Austrians for the unauthorized handling of nuclear fuels. The three accused are said to have imported five kilograms of cesium 137, 1.78 kilograms of uranium 238, as well as 300 components from smoke detectors containing plutonium from Poland and the CIS states, the Berlin judicial authorities announced today. The highly radioactive material was confiscated yesterday, according to the announcement, as the accused were about to sell it to a police agent for 4 million German marks.

Another suspect—a Polish businessman—was arrested today. He is said to have acted as an intermediary for the planned sale. The man was brought before a judge. According to judicial spokesman Bruno Rautenberg, the radioactive material confiscated was properly packed by the accused. The men "apparently knew what they were doing," it was said. The material is now being stored at the Central Office for the Disposal of Radioactive Waste at the Hahn-Meitner Institute [in Berlin].

### **UNITED KINGDOM**

#### **Firm Said Exporting Nuclear Technology to India**

*92WP0250B Islamabad THE MUSLIM in English  
15 Jun 92 pp 1, 12*

[Article by S.M. Mustafa: "UK Firm Exports Nuclear Technology to India"]

[Text] London, June 14: A well known British Company GEC has secretly exported nuclear and missile technology to India, in conflict with the British government's commitment to halt the spread of strategic weapons.

The disclosure by the Sunday Time's 'Insight' is likely to cause a row with Pakistan, which is in dispute with India over Kashmir. Prime Minister Nawaz Sharif, who is due in London on his first official visit on Tuesday, is expected to raise the matter with John Major on Wednesday and with Foreign Secretary Douglas Hurd.

The documents show that over the past three years, the GEC sold India consignments of sophisticated electronic equipment for nuclear and missile applications. In one case, a manager of Marconi Instruments advised Indians on how to disguise an order for the Atomic Energy department in Bombay, which supplies India's atomic bomb programme. The telex discussed the wording of an "end user" certificate officials had to complete for a British export licence.

The telex in question from Allan Luskow, an export manager at Marconi stated: "It is important that minimum use of the title containing 'atomic' or 'nuclear' is made. Also the end use must be as peaceful as possible if it's to do with any atomic or nuclear (sic) we will not get licence. Suggest they say it is for medical research".

Luskow suggested that the equipment should be described as a scanner for "the study of body tissues". But the item could also be adapted for testing weapons material. It was destined for the Bhabha Atomic Research Centre where plutonium for India's atomic bomb is produced.

In another exchange, Keith Marshall, a manager with a GEC company, planned to avoid British export controls by downgrading the specifications of nuclear related equipment. The telex reported: "Have discussed with Peter Maggs who proposes that we rewrite the CX1570 data sheet changing peak current from 3000A to 15000A. We must stress that this in no way affects the performance of the tube-but puts it below export licence threshold".

Dr. Maggs, Sales Manager at GEC's power tube division in Chesham, Essex, later telexed India to reassure the customer, the Indian Department of Atomic Energy, about the use of the equipment in copper vapour lasers. The export of such lasers and their component parts is controlled by British export regulations because of their potential for refining Plutonium and Uranium for nuclear weapons.

British customs officers have interviewed senior GEC managers but said they could not act because the exports were licensed by the Department of Trade and Industry (DTI), making them legal. The Customs said it was for the DTI to take action. The spokesman at the DTI told The Muslim: "We never comment on individual licence application. We could not discuss confidential cases".

One destination for GEC's products was the research centre at Imarat, near Hyderabad Deccan, the headquarters of India's missile programme. The site is the centre of development of India's Agni ballistic missile designed to carry nuclear or chemical payloads up to 1500 miles, that would cover all Pakistan and large part of China. A test launch of Agni last month drew strong criticism from the United States.

Other shipments were sent to the Defence Research and Development Laboratory, where missile-testing work is carried out. The equipment included magnetrons for the radar guidance and detonation systems of missile, and thyatron suitable for production of radio active material.

The disclosures will embarrass GEC which supplies defence equipment worth millions of pounds to the British government and NATO. The company makes radars for most of the British armed forces missiles and equips Britain's nuclear power stations.

Lord Weinstock, its Managing Director and a Jew, is studying the allegations. However, there are serious questions over why the DTI licensed many of the exports, assuming it knew their destinations and end use. Normally, firms are prevented from exporting nuclear or missile technology to all but Britain's closest allies.

To confirm that the DTI appears to have relaxed its normal controls for GEC's benefit, an 'Insight' reporter posing as a businessman telephoned the DTI's security export control office in London. The DTI, official who dealt with our inquiry said it was most unlikely that 'Insight's' fictional company would be allowed to export missile parts to India. It would be very difficult to get a licence for that. India hasn't signed the Missile Technology Control Regime or the Nuclear Non-Proliferation Treaty (NPT).

The official, whom the DTI asked 'Insight' not to name, added that the British government considered India to be a "destination subject to special licensing procedures and it would be sensitive for those reasons."

Frank Barnaby, an independent nuclear expert, said the exports to India were "extremely unwise" and in breach of the spirit of the NPT. The treaty, signed by Britain in 1968, states that parties "undertake... not in any way to assist, encourage or induce any non-nuclear weapon state to manufacture or otherwise acquire nuclear weapons." India exploded its first atomic bomb in 1974, but has never signed the treaty. Its nuclear research and programme is not, therefore, regarded as peaceful by the West.

The export by Britain also appear to defy the Missile Technology Control Regime signed by the Western powers, including Britain and America in 1987. The treaty prevents the sale of parts for long-range or ballistic missiles.

One GEC document describes a visit by Gerry Watt, a sales manager, to the research centre at Imarat (RCI) on June 20, 1990. Watt was on a secret mission to gather information about the sale of parts used in radar guidance system. Watt wrote in his report: "RCI is a government funded research and production facility for ballistic missiles... RCI are already a good EEV customer".

Another report by Watt in June 1990 refers to the purchase by the Indian missile establishment of EEV magnetrons, which can be used as proximity fuses to detonate warheads as well as for radar guidance. Watt reveals India's planned mass production of missiles: "2/3 pieces required initially for trial, will be used in missile. Known build, 100".

David Taylor, the EEV manager in charge of Watts department, confirmed last week the company had exported "products for the short-range missile systems" to India. "None of our products have ended up in long-range missile system", he said.

India's missile programme has been criticised by Western countries that are concerned about the threat to international and regional security. America imposed sanctions last April on the export of high-technology equipments to India.

Foreign Secretary Douglas Hurd said after the first test launch of Agni missile in 1989: "The proliferation of ballistic missiles is an extremely disturbing trend which

in the long term would undermine much of what we have achieved in reducing international tension in the East-West context".

The expensive export of highly dangerous parts and equipment must have helped in improving the British balance of payment problem. Pakistani observers fear that it will increase the arms race between India and Pakistan. None of them are in a position to increase expenditure on defence.



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